

TABLE OF CONTENTS

PAGE

EXECUTIVE SUMMARY

RECOMMENDATIONS

INTRODUCTION

BACKGROUND

Major Accomplishments

UBS Organization

SCOPE AND METHODOLOGY

FINDING I

**BY EITHER IMPROVING OR OUTSOURCING
THE UTILITY BILLING SYSTEM,
THE CITY AND ITS RECYCLE PLUS CUSTOMERS
COULD SAVE AT LEAST \$2.7 MILLION PER YEAR
WHILE CUSTOMER SERVICE AND CONTROL
OVER \$46 MILLION IN ANNUAL
CITY REVENUES COULD BE ENHANCED**

History Of The City's Utility Billing System

The UBS Costs \$3.7 Million Per Year

*As Of February 27, 1997, The City Has Spent \$1.5 Million
On Hardware And Software For Its UBS And
Is Contractually Committed To Pay An Additional \$380,000*

*System Limitations and Procedural Deficiencies Precipitated
The Loss Of Database Information In September 1996
And Cost The City Nearly \$600,000*

- *A Bifurcated Structure*
- *Estimated Cost Of Database Failure*

*The UBS Incorporates An Unduly Complicated,
Marginally Effective, And Costly Lien Process That
If Eliminated In Favor Of An Accelerated Special Assessment
Process Could Save Delinquent Customers Nearly \$800,000 Per Year
And Increase UBS Revenues By Nearly \$300,000 On A One-Time Basis*

- The Customer Lien Process Is Unduly Complicated
- The UBS Customer Lien Process Is Only Marginally Effective
As A Payment Incentive
- The Customer Lien Process Costs Nearly \$800,000 Per Year
- Customer Lien Process Creates A Significant Public Relations Problem
For The City
- Eliminating The Lien Function And Using The Special Assessment
Process Could Save Delinquent Customers Nearly \$800,000
- The Special Assessment Process
- Other City Departments Use A Simple Assessment Process Instead
Of A Lien Process
- The UBS Lien Unit's Workload Would Be Reduced
By More Than 90 Percent
- Delinquent Recycle Plus Customers Would Save \$800,000 Per Year
- An Accelerated Special Assessment Process Would
Increase Recycle Plus Revenues By Nearly \$300,000
On A One-Time Basis And Reduce The Recycle Plus
Program's Exposure To Non-Payment
- Retain Property Owner Notifications
- Delinquent Balances Should Remain On Recycle Plus Bills

*The UBS Customer Service Function Largely Duplicates
What The Service Providers Do For The Same Customers*

- Duplicative Customer Service
- Only 16 Percent Of Customer Calls Are Strictly Billing-Related
- Redirecting Customer Calls
- Duplicative Computer Databases
- Haulers Prepare Quarterly Service Reports For ESD
- Reasons For Overlapping Responsibilities
- Streamlining Customer Service Could Save Up To \$400,000

*Opportunities Exist For The City To Combine
Other City Billing Functions With The UBS*

- Other Jurisdictions Have Consolidated Billing
- Consolidating Sewer Billing Services
Could Save \$700,000 Per Year And Increase Interest Income
For The City By \$870,000 Per Year

*Opportunities Exist For The City To Extend The Use
Of Credit Cards To Its Recycle Plus Customers*

- The UBS Should Accept Credit Card Payments

*Implementing Accounting And Procedural Changes
Will Increase Recycle Plus Revenues
By \$500,000 On A One-Time Basis*

- Finance Should Account For Delinquent Charges
In A Deferred Revenue Account
- Improper Use Of The Recycle Plus Allowance Account
And Too High Of An Allowance Rate
Understated Revenues By \$500,000
- \$1.4 Million In Recycle Plus Accounts Receivables
Not Recorded As Of June 30, 1996
- \$114,500 In Recycle Plus Back-Billed Accounts
- Undocumented Write-Off Policies
- \$1.4 Million In Accounts Receivable Unreconciled Differences
Between The UBS And The FMS
- Inadequate Separation Of Duties

*The City Should Evaluate The Merits
Of Either Retaining Or Outsourcing The UBS*

- Establishing Adequate Controls
- The Customer Star Upgrade
- Local Vendor Interest In Providing Utility Billing Services
- The Need to Competitively Bid The Outsourcing Of The UBS Billing
Function

Should The City Opt To Retain The UBS, Improvements Are Needed

- The UBS Should Prepare A Data System Contingency Plan
- Contingency Plans For Other Departments
- The City Should Transfer Operational Responsibility
For Its UBS Computer System To The IT Department
- The UBS Should Hire A Permanent UBS Database Administrator
- Controls Over Detecting Database Errors Should Be Improved

*By Implementing These Recommendations, The City And Its Recycle Plus
Customers Could Save At Least \$2.7 Million Per Year*

CONCLUSION.....

RECOMMENDATIONS.....

FINDING II

**THE GENERAL FUND CONTRIBUTED \$1.2 MILLION
MORE THAN NEEDED FOR LOW-INCOME AND
DISABILITY RATE SUBSIDIES DURING 1994-95 AND 1995-96**

The Recycle Plus Subsidy Programs

*The General Fund Contributed \$1.2 Million More Than Needed
For Subsidies During 1994-95 And 1995-96*

Transfers Should Be Structured To Cover The Cost Of Subsidy Programs

CONCLUSION.....

RECOMMENDATIONS.....

APPENDIX A	
DEFINITIONS OF PRIORITY 1, 2, AND 3	
AUDIT RECOMMENDATIONS	A-1

APPENDIX B	
COMPARISON OF ACCOUNTING ENTRIES:	
UBS VS. OUR RECOMMENDED APPROACH	B-1

APPENDIX C	
UBS AUDIT INFORMATION MEMORANDUM	C-1

APPENDIX D	
MEMORANDUM OF MAJOR PROGRAM ACCOMPLISHMENTS	D-1

LIST OF CHARTS, DIAGRAMS, AND TABLES

	PAGE
TABLE I	
<i>Recycle Plus List Of Contractors</i>	<i>2</i>
CHART I	
<i>Utility Billing System Organization Chart</i>	<i>4</i>
TABLE II	
<i>The UBS Operating Budgets From 1992-93 To 1996-97</i>	<i>12</i>
TABLE III	
<i>Production Log Summary Of UBS Back-Up Procedures For The 12 Months Ended September 1996</i>	<i>16</i>
TABLE IV	
<i>Estimated Costs Of The September 1996 Database Failure</i>	<i>19</i>
TABLE V	
<i>Lien Summary 1994-95 Through 1995-96</i>	<i>20</i>
TABLE VI	
<i>Recycle Plus Late Payment Penalty And Lien Fee Rate Schedule 1992-93 Through 1996-97</i>	<i>22</i>
DIAGRAM I	
<i>Illustration Of The Typical Lien Process</i>	<i>23</i>
TABLE VII	
<i>Estimate Of The Amount Of UBS Revenues The Lien Process Protected In 1995-96</i>	<i>25</i>
TABLE VIII	
<i>The UBS Lien Unit Costs From 1994-95 Through 1996-97</i>	<i>26</i>
DIAGRAM II	
<i>Illustration Of The UBS Special Assessment Process</i>	<i>28</i>
CHART II	
<i>Comparison Of Lien Process To Special Assessment Process</i>	<i>30</i>
TABLE IX	
<i>Comparison Of Paper Flow Current Lien-To-Assessment Process To Proposed Special Assessment Process</i>	<i>32</i>
TABLE X	

<i>The UBS Lien Fee Revenues From 1994-95 Through 1996-97</i>	<i>33</i>
---	-----------

DIAGRAM III

<i>Illustration Of The Proposed Accelerated Assessment Process</i>	<i>35</i>
--	-----------

TABLE XI

<i>Estimated Interest Earnings Impact Of Bi-Monthly Sewer/Storm Billing Assuming 5.7 Percent Rate Of Return</i>	<i>48</i>
---	-----------

TABLE XII

<i>Estimated Cost Savings And Revenue Impact Of Bi-Monthly Sewer And Storm Drain Billing</i>	<i>49</i>
--	-----------

TABLE XIII

<i>Summary Of Outsourcing Options</i>	<i>60</i>
---	-----------

TABLE XIV

<i>Comparison Of Current And Proposed System Configuration</i>	<i>63</i>
--	-----------

TABLE XV

<i>Summary Of Potential Savings, Additional Revenue And Accelerated Cash Receipts From Implementing Audit Recommendations</i>	<i>76</i>
---	-----------

TABLE XVI

<i>Special Rate Subsidies And General Fund Transfers 1994-95 And 1995-96</i>	<i>85</i>
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EXECUTIVE SUMMARY

In accordance with the City Auditor's 1996-97 Audit Workplan, we are auditing the Integrated Waste Management services the Environmental Services Department (ESD) provides. Included in our audit of ESD is the Finance Department's (Finance) Utility Billing Services Division (UBS). In response to a Council Request, we are presenting the UBS portion of our audit first. We conducted this audit in accordance with generally accepted government auditing standards and limited our work to those areas specified in the Scope and Methodology section of this report.

**BY EITHER IMPROVING OR OUTSOURCING
THE UTILITY BILLING SYSTEM, THE CITY
AND ITS RECYCLE PLUS CUSTOMERS COULD SAVE
AT LEAST \$2.7 MILLION PER YEAR
WHILE CUSTOMER SERVICE AND CONTROL OVER \$46 MILLION
IN ANNUAL CITY REVENUES COULD BE ENHANCED**

In May 1991, as part of the Recycle Plus program planning process, the San Jose City Council (City Council) opted to separate the billing and revenue collection function from the service delivery function. The Administration initiated a lengthy and unsuccessful request for proposals (RFP) process to secure a vendor to maintain a Recycle Plus customer database, bill customers and collect revenues. The Administration subsequently elected to negotiate a contract with San Jose Water Company (SJWC) to print Recycle Plus bills and collect revenues while the City would develop its own UBS for its Recycle Plus customers. Our review of the City's UBS revealed the following:

- The cost of the UBS is about \$3.7 million per year;
- As of February 1997, the City has spent \$1.5 million on hardware and software for its UBS and is contractually committed to pay an additional \$380,000;
- System limitations and procedural deficiencies precipitated the loss of database information in September 1996, that will cost the City nearly \$600,000;
- The UBS incorporates a lien process that is unduly complicated, marginally effective as a payment incentive, and costly. If the lien process were eliminated in favor of an

accelerated special assessment process, delinquent customers could save nearly \$800,000 per year and Recycle Plus revenues could increase by nearly \$300,000 on a one-time basis;

- The UBS customer service function largely duplicates what the service providers do for the same customers;
- Opportunities exist for the City to combine other City billing functions with the UBS and extend the use of credit cards to its Recycle Plus program customers;
- Recycle Plus program revenues were understated by \$500,000;
- Recycle Plus program Accounts Receivable were understated by \$1.4 million as of June 30, 1996; and
- There was an unreconciled Accounts Receivable difference between the UBS database and the City's Financial Management System (FMS) of \$1.4 million.

In our opinion, the City should improve its UBS by eliminating the lien function, streamlining its customer services, consolidating City billings, accepting credit card payments, and implementing accounting and procedural changes to strengthen internal controls and provide more accurate reporting of Recycle Plus program revenues. Further, the City should evaluate the merits of either retaining or outsourcing the UBS.

Should the City opt to retain the UBS computer system then the City should:

- Finish the development of the UBS software and database system;
- Transfer operational responsibility for its computer system to the Information Technology Department (IT);
- Hire a permanent UBS Database Administrator; and
- Prepare a data system contingency plan.

By implementing the recommendations in this Finding, we estimate the City and its Recycle Plus customers could save at least \$2.7 million per year and increase Recycle Plus revenues by \$800,000 on a one-time basis.

THE GENERAL FUND CONTRIBUTED \$1.2 MILLION MORE THAN NEEDED FOR LOW-INCOME AND DISABILITY RATE SUBSIDIES DURING 1994-95 AND 1995-96

The UBS administers several subsidy programs for its Recycle Plus customers including low-income rate assistance, subsidized on-premise collection for people with disabilities, fee exemptions in cases of illness, death, or if the premises is uninhabitable, and reduced rates based on a medical condition which results in the generation of a significant amount of medical waste. The General Fund annually transfers funds to the Integrated Waste Management (IWM) Fund to cover the subsidies. During 1994-95 and 1995-96, the General Fund transferred \$1 million per year to the IWM Fund. However, subsidy usage over that two year period was only \$787,000. As a result, the General Fund contributed \$1.2 million too much to the IWM Fund. In our opinion, the IWM Fund should transfer the excess back to the General Fund. In addition, Finance should periodically review subsidy usage and transfer subsidy amounts from the General Fund to the IWM Fund on a cost-reimbursement basis.

RECOMMENDATIONS

We recommend that:

Recommendation #1:

The City Council (1) revise the Municipal Code to remove the Recycle Plus lien requirement (2) direct the Finance Department to use the special assessment process to collect delinquent Recycle Plus fees, and (3) direct the Finance Department and ESD to prepare a revised fee and penalty schedule that results in a revenue-neutral impact on the IWM fund. (Priority 2)

Recommendation #2:

If the City Council eliminates the lien function, the Finance Department should (1) use the special assessment process to collect Recycle Plus Fees that have been delinquent 60 days or more as of the County Tax Collector's special assessment submittal deadline, (2) notify property owners of intent to assess delinquent Recycle Plus bills, and (3) keep delinquent balances on Recycle Plus customer bills until they are assessed. (Priority 2)

Recommendation #3:

Recycle Plus haulers handle customer service calls directly. (Priority 2)

Recommendation #4:

The City Council consider combining sewer and storm drain fees with Recycle Plus billings. (Priority 2)

In addition, we recommend that the Finance Department:

Recommendation #5:

Implement a policy of accepting credit card payments for Recycle Plus services. (Priority 2)

Recommendation #6:

Use a deferred revenue account to defer recognition of special assessment and delinquent fee revenue, and annually review deferred revenue and make necessary adjustments. (Priority 2)

Recommendation #7:

Annually review the allowance rate for write-offs and make necessary adjustments, and recognize excess allowance balances as revenues in 1996-97. (Priority 2)

Recommendation #8:

Revise its method of accounting for Recycle Plus receivables to ensure that receivables for liens, special assessments, fees and penalties are recorded in the FMS. (Priority 2)

Recommendation #9:

Prepare written procedures regarding the use of the "back-billed" account designation which exempts certain accounts from special assessments and penalties, and remove the back-billed coding from those accounts that are more than 12 months overdue. (Priority 2)

Recommendation #10:

Prepare a written policy clarifying what Recycle Plus write-offs are allowable and reasonable. (Priority 3)

Recommendation #11:

Prepare monthly reconciliations of the UBS customer accounts receivable and lien/assessment receivables to FMS. (Priority 3)

Recommendation #12:

Improve the separation of duties related to the receipt of lien payments to ensure that personnel in charge of recording liens do not handle lien payments. (Priority 3)

Further, we recommend that the City Council:

Recommendation #13:

Consider whether to retain all or part of the UBS. (Priority 2)

In addition, we recommend that:

Recommendation #14:

The Administration evaluate the capabilities of Greenteam, SJWC, and Western/USA Waste to provide utility billing services for the City's Recycle Plus program, and report back to the City Council regarding the results of that evaluation. (Priority 2)

Recommendation #15:

The City Council assess the need to upgrade to Customer Star II based upon the Administration's evaluation of the capabilities of Greenteam, SJWC, and Western/USA Waste to provide UBS billing services and the need for a lengthy competitive RFP process. (Priority 2)

We recommend that if the City retains the UBS computer system, the Administration:

Recommendation #16:

Prepare a computer contingency plan for the UBS and clarify back-up procedures.
(Priority 2)

In addition, we recommend the IT Department:

Recommendation #17:

Review the adequacy of all major City computer system back-up procedures and computer contingency plans. (Priority 2)

Further, we recommend that if the City retains the UBS computer system, the Administration:

Recommendation #18:

Relocate the UBS computer system to the IT computer room and that the IT department operate and maintain the UBS computer system. (Priority 3)

Recommendation #19:

Request that the City Council authorize a database administrator position at the UBS.
(Priority 3)

Recommendation #20:

Establish on-going procedures for (1) scanning for errors and correcting customer data in the database, (2) purging unnecessary data, (3) authorizing changes in account status from active to inactive, and (4) routinely reviewing monthly reports for rate code exceptions. (Priority 3)

Also, we recommend that the City Manager's Budget Office:

Recommendation #21:

Review the \$1.2 million in unused subsidies and associated administrative costs and determine what amount should be transferred back to the General Fund. (Priority 2)

Finally, we recommend that the Finance Department:

Recommendation #22:

Periodically review year-to-date subsidy usage and transfer subsidy amounts from the General Fund to the IWM fund on a cost-reimbursement basis. (Priority 2)

INTRODUCTION

In accordance with the City Auditor's 1996-97 Audit Workplan, we are auditing the Integrated Waste Management services the Environmental Services Department (ESD) provides. Included in our audit of ESD is the Finance Department's Utility Billing Services Division (UBS). In response to a Council Request, we are presenting the UBS portion of our audit first. We conducted this audit in accordance with generally accepted government auditing standards and limited our work to those areas specified in the Scope and Methodology section of this report.

The City Auditor's Office thanks the UBS, the Finance Department, the Information Technology Department, and the Integrated Waste Management Division of ESD for their time, information, insight and cooperation during the audit.

BACKGROUND

The Utility Billing System (UBS) is a division of the Finance Department which provides customer service, database maintenance, billing, and remittance processing services for the City of San Jose's Recycle Plus program. The UBS is funded through the Integrated Waste Management fund (Fund 423).

The Integrated Waste Management Division (IWM) of the Environmental Services Department coordinates the Recycle Plus program. Since July 1993, the Recycle Plus program has provided residential garbage, recyclable, and yard waste collection services for single- and multi-family residences in San Jose. The City of San Jose (City) sets customer rates, collects fees, and contracts for collection services with three integrated waste management haulers (solid waste and recyclable collection), two yard waste haulers, three yard waste processors, and one landfill. The City pays the contractors based on the number of service recipients, and the amount of solid waste, yard waste, and recyclables collected and processed. Table I lists the Recycle Plus contractors.

TABLE I

RECYCLE PLUS LIST OF CONTRACTORS

Type Of Service	Contractor
Single-family collection	Greenteam (District A) Western Waste Industries (Districts B & C)
Multi-family collection	Greenteam (Citywide)
Yard waste collection	Greenwaste Recovery, Inc. (Districts B & C) Browning-Ferris Industries, Inc. (District A)
Yard waste processors	International Disposal Corporation Guadalupe Rubbish Disposal Company Zanker Road Resource Management, Ltd.
Landfill	International Disposal Corporation

The Recycle Plus program is a volume based system with unlimited recycling and limited garbage disposal. Since 1993, the monthly rate for garbage (32 gallon cart), recycling, and yard

waste collection has been \$13.95. The City offers a variety of rate subsidy programs. The City's General Fund subsidizes these special rates.

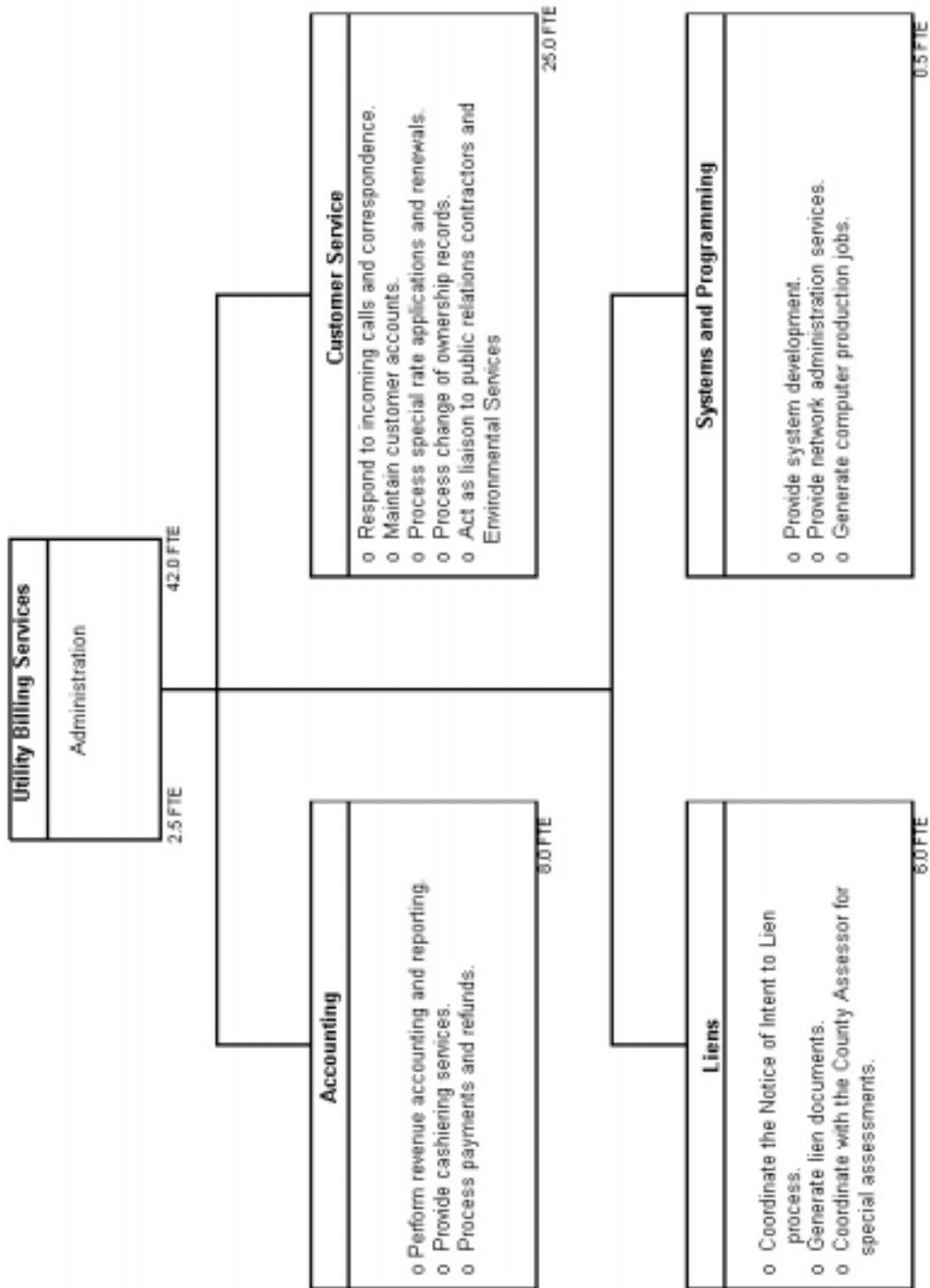
Major Accomplishments

The Administration has provided the Auditor's Office with a memorandum of major program accomplishments attached as Appendix D.

UBS Organization

As shown in Chart I, the UBS is organized in five sections: Administration, Customer Service, Accounting, Liens, and Systems and Programming.

CHART I UTILITY BILLING SYSTEM ORGANIZATION CHART



SCOPE AND METHODOLOGY

The objective of our review of the Utility Billing Services Division (UBS) of the Finance Department was to verify compliance with the Municipal Code and City Council direction regarding (1) residential waste collection fee computations and billings, (2) the receipt and handling of customer payments, and (3) the handling of delinquent bills. In addition, we assessed the efficiency and effectiveness of the UBS customer services.

We met with the City's Recycle Plus haulers and with the UBS' bill- and remittance-processing contractor, San Jose Water Company (SJWC), to determine the scope of their responsibilities for customer service and billing. We reviewed the methods that the UBS uses to coordinate information with the haulers and SJWC to ensure that the customer database is complete. We reviewed written procedures for completeness. We interviewed staff, toured the customer service operations, listened to customer calls, and observed database usage at both the UBS and the haulers' facilities. We reviewed and compared management reports regarding the number and type of customer calls and call answer times.

We reviewed the criteria that the UBS uses to determine eligibility for the various City Council authorized rate subsidy programs, and verified that controls are in place to assure that only eligible persons receive rate subsidies.

We documented the UBS and SJWC remittance- and cash-handling procedures and assessed the internal controls over these procedures. We reviewed the UBS procedures for recording revenue in the City's Financial Management System and assessed the appropriateness of its accounting procedures.

We documented the UBS policies and procedures for handling delinquent bills and recording liens and assessments. We compared the UBS lien and assessment procedures to the procedures that other City departments use to collect delinquent fees. We also reviewed the cost-recovery aspect of the lien fees and the cost-benefit of the lien process.

We performed limited testing to determine the accuracy and reliability of information in the various computer reports we used during our audit. Such testing included walk-throughs of various computer operations and comparison of the UBS internal management reports to other reports. We met with the UBS and Finance Department officials responsible for computer operations to help us assess the accuracy and reliability of the computer-generated information. We did not review the general and specific application controls for the computer systems used in compiling the various computer reports we reviewed.

We reviewed the costs incurred from 1993 on the UBS computer system project, which is not yet completed. We also surveyed other jurisdictions for comparative cost-of-utility-billing services purposes, and reviewed possible outsourcing options. We were unable to draw any strict cost comparisons between the City's billing system and other utility billing systems because each utility system offers different levels of service. The UBS lost its computer system database in September 1996. We reviewed computer production logs and interviewed UBS and Information Technology Department staff to determine the cause of the database loss.

FINDING I

BY EITHER IMPROVING OR OUTSOURCING THE UTILITY BILLING SYSTEM, THE CITY AND ITS RECYCLE PLUS CUSTOMERS COULD SAVE AT LEAST \$2.7 MILLION PER YEAR WHILE CUSTOMER SERVICE AND CONTROL OVER \$46 MILLION IN ANNUAL CITY REVENUES COULD BE ENHANCED

In May 1991, as part of the Recycle Plus program planning process, the San Jose City Council (City Council) opted to separate the billing and revenue collection function from the service delivery function. The Administration initiated a lengthy and unsuccessful request for proposals (RFP) process to secure a vendor to maintain a Recycle Plus customer database, bill customers and collect revenues. The Administration subsequently elected to negotiate a contract with San Jose Water Company (SJWC) to print Recycle Plus bills and collect revenues while the City would develop its own Utility Billing System (UBS) for its Recycle Plus customers. Our review of the City's UBS revealed the following:

- The cost of the UBS is about \$3.7 million per year;
- As of February 1997, the City has spent \$1.5 million on hardware and software for its UBS and is contractually committed to pay an additional \$380,000;
- System limitations and procedural deficiencies precipitated the loss of database information in September 1996, that will cost the City nearly \$600,000;
- The UBS incorporates a lien process that is unduly complicated, marginally effective as a payment incentive, and costly. If the lien process were eliminated in favor of an accelerated special assessment process, delinquent customers could save nearly \$800,000 per year and Recycle Plus revenues could increase by nearly \$300,000 on a one-time basis;
- The UBS customer service function largely duplicates what the service providers do for the same customers;
- Opportunities exist for the City to combine other City billing functions with the UBS and extend the use of credit cards to its Recycle Plus program customers;
- Recycle Plus program revenues were understated by \$500,000;

- Recycle Plus program Accounts Receivable were understated by \$1.4 million as of June 30, 1996; and
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In our opinion, the City should improve its UBS by eliminating the lien function, streamlining its customer services, consolidating City billings, accepting credit card payments, and implementing accounting and procedural changes to strengthen internal controls and provide more accurate reporting of Recycle Plus program revenues. Further, the City should evaluate the merits of either retaining or outsourcing the UBS.

Should the City opt to retain the UBS computer system then the City should:

- Finish the development of the UBS software and database system;
- Transfer operational responsibility for its computer system to the Information Technology Department (IT);
- Hire a permanent UBS Database Administrator; and
- Prepare a data system contingency plan.

By implementing the recommendations in this Finding, we estimate the City and its Recycle Plus customers could save at least \$2.7 million per year and increase Recycle Plus revenues by \$800,000 on a one-time basis.

History Of The City's Utility Billing System

In May 1991, as part of the Recycle Plus program planning process, the City Council decided to separate the billing and revenue collection functions from the hauling contracts. At that time, the Administration assumed that customer service would be split between the haulers and a billing service, and that the lien function would continue in the Finance Department (Finance) and the Code Enforcement Division of the Neighborhood Preservation Department.

In July 1992, the Administration distributed RFPs on billing services to 21 prospective vendors. The City received five proposals, all of which it eventually rejected. With City Council approval, the Administration evaluated the City of Sacramento and the SJWC as potential providers. In November 1992, the Administration negotiated a \$1.2 million contract (\$981,000 plus \$194,500 for start-up expenses) with the SJWC for (1) billing services for the first year of the Recycle Plus program and (2) the development of a software system ("Methodware") that would provide utility billing services. At that time, the City also entered into a consulting agreement with James Wells for project management. Payments to James Wells eventually totaled \$168,000.

By Spring 1993, the SJWC's "Methodware" system was not operational. As a result, in May 1993, the City Council reduced the scope of services with the SJWC to bill production, mailing services, and remittance processing with an estimated annual cost of \$720,000. The City Council terminated the agreement with James Wells and contracted with his company, Wellsco, for the acquisition of a new billing system called "Socrates" at a cost not to exceed \$803,000 over a two year period. In addition, the City entered into an agreement with Chris Baldo to oversee the implementation of the UBS system. The City paid Chris Baldo \$170,000 for his work on this project.

The Recycle Plus program began July 1, 1993. The first bills were prepared beginning August 31, 1993 using the Socrates system. In December 1993, the City and Wellsco amended the original agreement to more fully state all of the obligations of the parties. The agreement granted the City a *"nonexclusive computer program end-user license agreement"*. Under this agreement, the

... Programs, including any associated intellectual property rights, are and shall remain the sole property of CONTRACTOR, regardless of whether CITY, its employees, or contractors may have contributed to the conception of such work, joined in the effort of its development, or paid CONTRACTOR for the use of the work product.

According to the payment schedule in the contract, the final payment was the \$250,000 license fee which was due on July 15, 1994. The agreement also entitled the City to certain royalties for Wellsco's sale or licensing of the software which the City was paying Wellsco to develop. The City's royalty share was established at 20 percent of all license fees over \$75,000 per year. The royalty provision runs through the year 2000 or until Wellsco has been paid \$350,000.

In August 1994, Wellsco and Electronic Data Systems Inc. (EDS) entered into a business "Teaming Agreement" providing for a new version of the software (now called Customer Star) to be marketed and supported exclusively by EDS. In December 1995, the City installed upgraded equipment and software to begin a project to convert the system to an Oracle database system.

In July 1996, the City, Wellsco, and EDS entered into a master agreement to restate their respective responsibilities and obligations in the conversion project. The agreement included: (1) a license agreement between EDS and the City for use of the upgraded software, (2) an agreement for consulting services between EDS and the City to assist with the system conversion in an amount not to exceed \$60,000, and (3) an agreement for software maintenance services between EDS and the City for \$30,750 following the conversion. Under the July 1996 agreement, Wellsco agreed to

. . . provide technical services to assist in the conversion of the Utility Billing Services data to a new database and server . . . which was acquired by the City as a necessary component to support acceptable production level performance for implementation of a new version of the billing software, which contains increased functionality.

Under the July 1996 restated agreement, the City revised its agreement with Wellsco for unpaid compensation under the December 1993 restated Wellsco Agreement as follows:

• For consultant services to assist in the conversion project	\$45,000
• License fee for software as set forth in the December 1993 restated Wellsco agreement - to be paid upon satisfactory performance of the terms and conditions of the restated Wellsco agreement	
	<u>205,000</u>
Total	<u>\$250,000</u>

The final phase of the UBS database installation, the conversion from "Socrates" to "Customer Star" software was projected to be completed in September 1996. However, the conversion project has been on hold since the loss of UBS database information in September 1996. As of March 1997, the UBS database project is not complete, and the City has not made the final \$205,000 payment to Wellsco.

The UBS Costs \$3.7 Million Per Year

The proposed 1996-97 operating budget for the UBS is nearly \$3.7 million. Table II shows the UBS budget from 1992-93 to 1996-97.

TABLE II

THE UBS OPERATING BUDGETS FROM 1992-93 TO 1996-97

	1992-93* (Actual)	1993-94 (Actual)	1994-95 (Actual)	1995-96 (Actual)	1996-97 (Adopted)
Personal Services	\$380,031	\$1,004,445	\$1,635,308	\$1,725,879	\$2,006,897
Non-personal	686,700	2,225,243	973,105	1,143,619	1,666,335
Total	\$1,066,731	\$3,229,688	\$2,608,413	\$2,869,498	\$3,673,232
Authorized Positions		43.0	42.0	42.0	42.0

** The year leading up to implementation of the Recycle Plus program.*

A large portion of the UBS' on-going budget is staffing. Currently, there are 42 full time equivalent positions (FTE) assigned to the UBS. The UBS has 2.5 FTE in Administration, 25 FTE in Customer Service, 8 FTE in Accounting, 6 FTE in the Lien section, and 0.5 FTE in the Systems and Programming section. The UBS is open from 8 a.m. to 6 p.m., Monday through Friday. At any given time, there are eight to twelve Customer Service Representatives (CSRs) on the phones. The number of CSRs on duty is affected by breaks, lunch, and flex time. Since haulers usually work on holidays, the UBS usually schedules eight CSRs on duty to answer service calls only. A recorded telephone message instructs those customers who call on holidays with questions regarding their billing to call back after the holiday. The UBS pays holiday rates for those CSRs who work on holidays.

The UBS contract with the SJWC is still in place. The UBS maintains the customer files and runs bill calculation routines nightly. The UBS transfers a bill print file by modem to the SJWC which prints, bursts, cuts, trims, folds, inserts, seals, runs address/barcode verification, stamps, and mails the bills. The SJWC also processes remittances and deposits them to the City's account. The SJWC contract for 1996-97 is for \$731,900 or approximately \$0.63 per bill.

**As Of February 27, 1997, The City Has Spent \$1.5 Million
On Hardware And Software For Its UBS And
Is Contractually Committed To Pay An Additional \$380,000**

In May 1993, faced with beginning the Recycle Plus program without a functioning billing system, the Administration presented two alternatives to the City Council. These two alternatives were to continue working with the SJWC on the "Methodware" project, or to contract with Wellsco, Inc., for development of the "Socrates" system. Finance recommended and the Council approved, contracting with Wellsco.

As of February 1997, total UBS payments and commitments for computer system hardware, software, project management, initial maintenance agreements, and training, were nearly \$1.9 million for the Wellsco system. This includes \$1.5 million paid to date to vendors including **Wellsco** (software systems development), the **SJWC** (computer equipment), **Inventa** (data conversion services), **USL Capital** (computer equipment lease payments), **Koch Financial Corporation** (computer equipment lease payments), **DEC** (maintenance, service, and training), **Oracle** (data conversion services, support, and training), **Edge** (system support services), and **Chris Baldo** (consultant). In addition, the UBS has nearly \$380,000 in contracts and purchase orders outstanding with vendors including **Wellsco**, **Inventa**, **EDS** (consulting services and maintenance agreement), **Oracle**, and **EXE, Incorporated** (technical services).

In addition to the \$1.9 million shown above, the City paid \$300,000 to the SJWC and \$168,000 to James Wells (consultant) on the 1992-93 "Methodware" project.

**System Limitations and Procedural Deficiencies Precipitated
The Loss Of Database Information In September 1996
And Cost The City Nearly \$600,000**

In September 1996, a UBS software maintenance procedure failed and data files were corrupted. The UBS was unable to access account information or process bills for two and one-half months while restoration was in process. In November 1996, the Administration reported to the City Council that

During the weekend of September 28-29, staff was performing periodic database maintenance, when the process stopped due to a temporary lack of file space. The staff attempted to restore the database from a back-up tape run the previous Friday. When that attempt failed one-third of the way through, an attempt was then made to restore from an even earlier tape (Thursday, September 26). This attempt also failed.

Subsequent review revealed that the tape drive was malfunctioning and had damaged all of the back-up tapes. In addition, the original system data was over written by the flawed tapes. (Emphasis added)

An IT programmer analyst assigned to the UBS was responsible for backing up the database to the tape drive. If the programmer analyst had run full verification routines on the back-up tapes, he would have known that the tapes were damaged. According to various City officials, full back-up verification was not a standard City practice at the time. IT employs other verification methods for its centralized systems that were not available on the UBS PC tape drive.

However, our review also revealed evidence that suggests the IT programmer analyst knew that the tape drive was malfunctioning. Specifically, our review of UBS computer production logs showed that the computer system experienced intermittent back-up failures as far back as January 1996. According to IT officials, errors during back-up may be attributable to tape defects, tape drive maintenance, or tape drive defects.

The IT programmer analyst assigned to the UBS was concerned enough about the faulty tape drive that he purchased a new tape drive in March 1996. However, the IT programmer analyst never installed the new tape drive. He left City employment in July 1996 and his position went unfilled until September 1996. The new tape drive the IT programmer analyst

purchased in March 1996, was found unopened under a desk in the UBS computer room after the September 1996 back-up failure.

Our review also revealed that in spite of known tape drive malfunctions, the UBS had been running without database back-up several times a month in the period preceding the database failure. UBS staff explained that through the summer of 1996, the bill computation routines began to take several hours because of the size of the files. The UBS contends that these bill calculation routines did not leave enough time to back-up the files on a daily basis. Our review of production logs confirmed that bill calculation times had risen to five hours or more by September 1996. However, our review of production logs did not show a correlation between bill computation times and the decision not to run a back-up. Specifically, we noted some days when bill calculation times took five hours and the UBS performed back-up procedures. However, we also noted some days when bill calculation only took one hour, but the UBS did not perform any back-up procedures. Table III shows the results of our review of production logs for the year preceding the September 1996 failure.

TABLE III

**PRODUCTION LOG SUMMARY OF UBS BACK-UP PROCEDURES
FOR THE 12 MONTHS ENDED SEPTEMBER 1996**

	Production Days	Number Of Days The UBS Did Not Run A Back-Up	Number Of Unspecified UBS Back-Up Failures	Number Of UBS Back-Up Failures Due To Device Errors	Total Number Of Days With No UBS File Back-Up
October 1995	22	0	0	0	0
November 1995	19	0	0	0	0
December 1995	19	0	0	0	0
January 1996	23	0	1	2	3
February 1996	23	1	1	2	4
March 1996	23	1	2	0	3

April 1996	22	2	0	0	2
May 1996	24	1	3	2	6
June 1996	20	0	1	1	2
July 1996	24	1	2	2	5
August 1996	24	2	1	2	5
September 1996	20	6	0	3	9

A Bifurcated Structure

In our opinion, the bifurcated structure between the UBS and IT, and the lack of clearly defined roles and responsibilities, contributed to the inadequate response to the intermittent UBS database back-up failures that staff noticed as early as January 1996. Specifically, Finance is responsible for day-to-day operation of the UBS database system. Although the programmer analyst who operates the system is physically located at the UBS, the position reports to IT under IT and Finance supervision. Moreover, the IT programmer analyst position was vacant from July to September 1996. After the crash, UBS management was dismayed to learn (1) of back-up failures as early as January 1996, (2) the new tape drive was still in its box under a desk, and (3) that their computer system operating platforms are so old as to be considered unsupported. These communication gaps indicate that the reporting relationship between the UBS and IT was flawed.

Also complicating the situation is the fact that the UBS has relied on outside consultants for (1) project management, (2) building the database, and (3) technical support. According to a recent Administration memorandum to the City Council which recommended one of the UBS consultants for a similar position as project manager for the new Human Relations (HR) system installation,

The project manager role is key to any major systems project . . . [T]his is the designated manager who oversees all aspects of the project, is a full time member of the project team through the life of the project, has authority to resolve day to day problems and raises issues for resolution by the executive steering committee and has responsibility for overall project technical direction.

Although the UBS system installation was not complete at the time of the crash, the consultant the Administration recommended in the above memorandum has moved on and is now project manager for the City's new HR system, leaving the UBS without a project manager.

Furthermore, the UBS does not have a designated database administrator. In other words, the UBS lacks someone who "owns" the database and knows the construction and layout of data files. Thus, in the wake of the crash, the UBS was without a project manager or a database administrator to coordinate database restoration. As a result, the UBS was without adequate in-house expertise to take charge of the database reconstruction after the September 1996 crash.

In addition, it appears that the restoration of the UBS database was hindered and delayed because the UBS did not have expert advice immediately available. The sequence of memorandums from the Administration to the City Council show an evolving sense of the magnitude of the problem:

- **October 4, 1996 memorandum to the City Council** - assuming current efforts are successful, anticipated restoration in one week.
- **October 25, 1996 memorandum to the City Council** - anticipate continued delay of several weeks.
- **November 6, 1996 memorandum to the City Council** - situation is more severe than anticipated and will require additional outside assistance.
- **November 12, 1996 City Council meeting** - anticipated database reconstruction in four weeks or less. The City Council approved staff's recommendation to contract with EDS for database restoration (estimated cost \$250,000), to offer a payment discount to Multiple Family Dwelling (MFD) customers (estimated cost \$56,000), and to forgive Low Income Rate Assistance (LIRA) customers for one billing cycle (estimated cost \$53,000). According to the City Manager, partial or complete outsourcing of the UBS is an option that will be discussed.

Estimated Cost Of Database Failure

In November 1996, staff estimated the cost of the September database failure at \$359,000. Although the City Council authorized staff to negotiate a contract for \$250,000 with EDS for database reconstruction, the actual cost was \$176,000. However, as a result of the loss of database information, the UBS was unable to bill customers for two and one-half months. We estimate lost interest due to delayed customer payments at \$18,000 per month. In addition, the crash forced the UBS to cancel at least two lien cycles. We estimate lost lien fees and delinquent penalties at \$274,000. Therefore, as shown in Table IV, we estimate that the UBS' system failure cost the City nearly \$600,000. It should be noted that the UBS does not expect to be able to catch up on its billing cycles until September 1997.

TABLE IV

ESTIMATED COSTS OF THE SEPTEMBER 1996 DATABASE FAILURE

EDS data reconstruction (budget authority \$250,000)	\$176,000
Payment discount for MFD owners (Council approved in November 1996)	32,000
Foregone LIRA billings for one bi-monthly cycle (City Council approved in November 1996)	68,000
Estimated lost interest from delayed Recycle Plus billings (\$18,000 per month from October 1996 through mid-December 1996)	45,000
Estimated lost lien fees and delinquent penalties (2 lien cycles)	274,000
Total Estimated Cost	\$595,000

**The UBS Incorporates An Unduly Complicated,
Marginally Effective, And Costly Lien Process That
If Eliminated In Favor Of An Accelerated Special Assessment
Process Could Save Delinquent Customers Nearly \$800,000 Per Year
And Increase UBS Revenues By Nearly \$300,000 On A One-Time Basis**

The UBS prepares approximately 1.2 million customer Recycle Plus bills per year. Recycle Plus bills are due within 30 days of the billing date and are considered delinquent if not

paid within five days. The late payment penalty is \$5 or 5 percent of the billed amount, whichever is larger. During 1995-96, UBS assessed over 110,000 late fees. Customer bills that remain delinquent for six months are candidates for the lien process. The UBS files approximately 18,600 liens each year. The Lien Unit of the UBS has 6 FTE who, we estimate, process more than 150,000 documents each year relating to these liens.

As shown in Table V, the UBS processed 22,061 liens in 1994-95 and 18,668 liens in 1995-96.

TABLE V

LIEN SUMMARY 1994-95 THROUGH 1995-96

	Number Of Liens Filed	Delinquent Customer Balances	Lien Fees Charged	Total Liened Amounts
1994-95	22,061	\$995,832	\$1,279,538	\$2,275,370
1995-96	18,668	\$975,161	\$ 765,388	\$1,740,549

Note: *Excludes liens in error and write-offs. Lien fees were \$58 in 1994-95 and \$41 in 1995-96.*

The Customer Lien Process Is Unduly Complicated

The Municipal Code (Code) section 9.10.1260, which was adopted on March 30, 1993, states that the Director of Finance shall file liens to secure delinquent Recycle Plus fees. Specifically,

- A. *Upon confirmation of the special assessment report by the city council, the delinquent solid waste collection service charges, the late charges and the administrative charges contained therein shall constitute a special assessment against the property for which the solid waste collection services bill remains unpaid. The director of finance shall record a lien in the office of the county recorder to secure the special assessment.*
- B. *The director of finance shall notify the owner of the property that the special assessment has been confirmed by the city council, that the solid waste collection charges, late charges and administrative charges are due*

to the city, and that a lien securing the special assessment has been recorded. (Emphasis added)

In order to implement these Code requirements, the UBS staff in the Lien Unit coordinate the bi-monthly lien cycle with an outside vendor (Navarone) and the Santa Clara County (County) Recorder's Office. First, the UBS staff prepare a list of accounts with charges that have been outstanding for six months or more. Using this list, Navarone produces and mails a Notice of Intent to Lien (NOIL) letter to the owner of each property on the list. Navarone processes about 27,000 NOIL letters per year. The UBS Data Entry Unit posts a \$15 delinquent penalty to each account that received a NOIL.

After the UBS staff sends the NOIL letters, the Lien Unit coordinates administrative hearings, conducts account research, and eliminates accounts that have been paid. Following the final due date, the Lien Unit records lien candidates' account numbers, delinquent balances, and an administrative fee of \$41 for each property on a PC spreadsheet called "Lien Master". Navarone prints lien documents, and the UBS delivers the lien documents to the County Recorder for recording.

Complicating the UBS lien process even more is the fact that the UBS Lien Unit frequently files multiple liens against the same property. This process increases the Lien Unit's workload. For example, when the Lien Unit processed special assessments in July 1996, there were 14,681 liens outstanding against only 4,320 properties. In other words, the UBS filed an average of 3.4 liens against the same property.

Table VI shows a rate schedule of Recycle Plus late payment and NOIL penalties, and lien fee amounts from 1992-93 through 1996-97.

TABLE VI
RECYCLE PLUS LATE PAYMENT PENALTY AND
LIEN FEE RATE SCHEDULE
1992-93 THROUGH 1996-97

	1992-93	1993-94	1994-95	1995-96	1996-97
Late payment penalty	\$5	\$5	\$5 or 5%	\$5 or 5%	\$5 or 5%
NOIL penalty			\$15	\$15	\$15
Lien fee	\$54	\$58	\$58	\$41	\$41

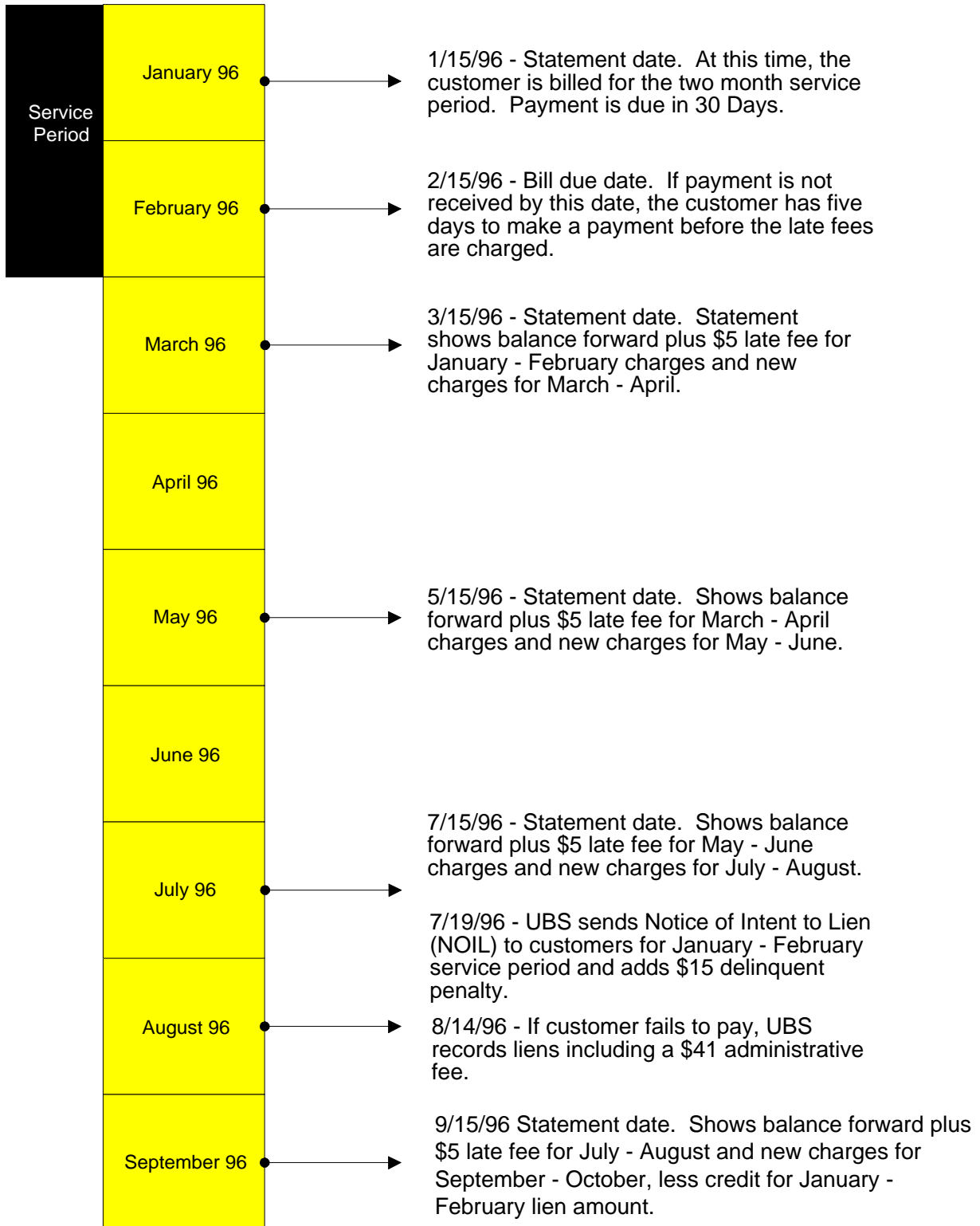
Once the UBS files the liens with the County, the UBS Data Entry Unit removes the liened balances from the customers' accounts in the UBS database. As a result, the customer no longer sees the delinquent balance on his or her Recycle Plus bill once the UBS has filed a lien.

If a property owner pays the lien amount prior to the end of the fiscal year, the UBS credits the Lien Master and submits a lien release to the County Recorder. The County Recorder charges the UBS an \$11 fee to release a lien. There is no County charge to place a lien.

Diagram I illustrates the typical lien process.

DIAGRAM I

ILLUSTRATION OF THE TYPICAL LIEN PROCESS



*The UBS Customer Lien Process Is Only
Marginally Effective As A Payment Incentive*

While liens can protect the City's interest with regards to delinquent bills, they are only marginally effective as a means to encourage delinquent customers to pay their bills. The UBS liens approximately 3,100 accounts every two months or 18,600 liens per year. Our review revealed that customers pay the UBS only 20 percent of lienied amounts. The UBS collects the other 80 percent of lienied amounts through the County's special assessment process. For example, during 1995-96, of the \$1,740,549 in total liens, customers paid the UBS only \$350,394. The UBS placed the remaining \$1.4 million as special assessments on the 1996-97 property tax roll. The UBS will receive payment on virtually all of the \$1.4 million that it placed on the 1996-97 property tax roll in January and June 1997.

The main benefit of a lien is to secure the City's interests with the current property owner in case of a change in ownership. In other words, the lien guarantees that the UBS will be paid the lien amount should the owner sell the property before the UBS can place the lienied amount as a special assessment on the property tax roll. In addition, UBS staff estimate that when customers paid off the above \$350,000 in liens they simultaneously paid off \$150,000 in current charges.

Because the Lien Master spreadsheet does not interface with the UBS database, it is not possible to calculate the actual amount of delinquent Recycle Plus bills that are paid through an escrow transaction involving a change in ownership. It should be noted that owners also clear liens for other reasons besides selling their property. Those reasons include ability to pay, refinancing a loan on the lienied property, or to clear a credit item. Thus, only a portion of the above \$350,000 in liens and \$150,000 in current charges on lienied property that property owners paid to the UBS can be attributed to changes in ownership. Specifically, our review of Santa Clara County title records indicates that title companies paid off 74 percent of the \$350,000 in lienied amounts. However, only 44 percent of the 74 percent in title company payments were

related to changes in ownership or foreclosures. The remaining 56 percent of title company payments were mostly related to refinancings.

Thus, we estimate that the lien process protected about \$163,000 in UBS revenues in 1995-96 calculated as follows:

<p style="text-align: center;">TABLE VII</p> <p style="text-align: center;">ESTIMATE OF THE AMOUNT OF UBS REVENUES</p> <p style="text-align: center;"><u>THE LIEN PROCESS PROTECTED IN 1995-96</u></p>							
	LIENED AMOUNTS						
	<u>Recycle Plus Billings</u>	<u>\$5 Late Fees</u>	<u>\$15 NOIL Charges</u>	<u>\$41 Lien Fees</u>	<u>Total</u>	<u>Current Charges</u>	<u>TOTALS</u>
1995-96 Payments to the UBS Lien Unit	\$107,000	\$20,000	\$60,000	\$163,000	\$350,000	\$150,000	\$500,000
Estimated Title Company Payments to the UBS Lien Unit	<u>x 74%</u> \$ 79,000	<u>x 74%</u> \$15,000	<u>x 74%</u> \$44,000	<u>x 74%</u> \$121,000	<u>x 74%</u> \$259,000	<u>x 74%</u> \$111,000	<u>x 74%</u> \$370,000
Estimated Title Company Payments Related to Changes In Ownership	<u>x 44%</u> <u>\$ 35,000</u>	<u>x 44%</u> <u>\$ 7,000</u>	<u>x 44%</u> <u>\$19,000</u>	<u>x 44%</u> <u>\$ 53,000</u>	<u>x 44%</u> <u>\$114,000</u>	<u>x 44%</u> <u>\$ 49,000</u>	<u>x 44%</u> <u>\$163,000</u>

As is shown above, we estimate that of the \$350,000 in lien amounts paid in 1995-96 only \$114,000 would have been lost to the UBS were it not for the lien process. Further, of this \$114,000, cost-recovery lien fees at \$41 per lien accounted for \$53,000. Accordingly, this \$53,000 would not be a factor if the lien process were eliminated because the UBS would not have incurred the cost in the first place.

The Customer Lien Process Costs Nearly \$800,000 Per Year

The UBS spends nearly \$800,000 per year processing liens. This \$800,000 per year includes the six FTE who work year-round processing the blizzard of paperwork associated with filing and releasing liens.

In addition to estimated costs for the UBS Lien Unit, there is \$50,000 paid to Navarone to mail NOILs. Table VIII summarizes the UBS' lien process costs from 1994-95 to 1996-97.

TABLE VIII
THE UBS LIEN UNIT COSTS
FROM 1994-95 THROUGH 1996-97

	1994-95	1995-96	1996-97
Estimated Lien Unit cost*	\$590,000	\$684,000	\$744,000
Plus mailing service cost	40,477	42,407	50,000
Revised cost	\$630,477	\$726,407	\$794,000

* **Source:** *City of San Jose Fees and Charges Report*

*Customer Lien Process Creates A Significant
Public Relations Problem For The City*

According to UBS staff, the worst effect of the lien requirement is the public relations problem it causes for the City. Although the Lien Unit is extremely conscientious about placing and releasing liens so as not to hinder property transfers and refinancings, owners of lien property are not fond of the program and consider the fees to be burdensome.

*Eliminating The Lien Function And Using
The Special Assessment Process
Could Save Delinquent Customers Nearly \$800,000*

In our opinion, the City could improve its UBS by eliminating the lien function. Specifically, our review revealed that eliminating the lien function would allow the UBS to simplify its operations, reduce staffing and costs, improve customer relations, and save delinquent customers \$800,000 per year.

Lien processing is a unique, atypical function. Most utility companies do not have the legal authority to lien property, but have the ability to stop service. As a result, due to the uniqueness of the UBS lien process, the selection of a Recycle Plus billing services vendor was complicated and competition for the job was reduced. One of the concerns the Administration

had about the SJWC system was its *"adaptability to the lien process."* That concern notwithstanding, our review revealed that the Wellsco system is also not very well adapted to the lien process. In fact, the only way the UBS can account for customer liens is by removing lienied accounts from the UBS database and keeping track of them on a PC spreadsheet.

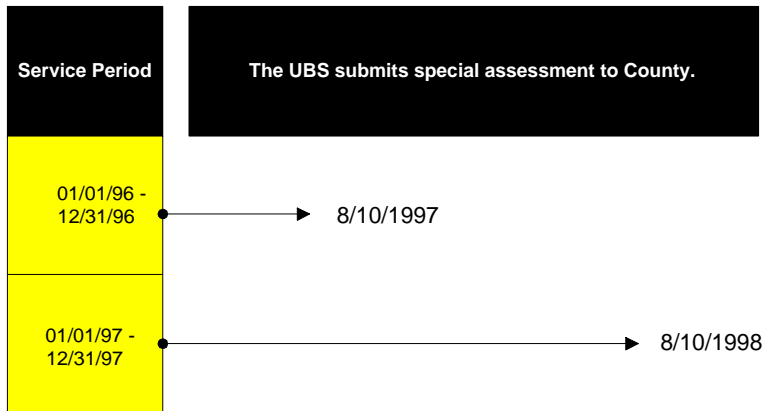
The Special Assessment Process

In August of each year, the UBS places any liens still outstanding at the end of the fiscal year as special assessments on the owners' property tax bills. The Lien Unit consolidates the lienied amounts by parcel number and adds a \$5 assessment fee per parcel. The City delivers a computer tape listing of the parcels and amounts due to the County Tax Collector for recording on the tax roll. Once the UBS records the special assessments with the County, the Lien Unit releases the liens with the County Recorder, records lien release numbers in the Lien Master, files necessary documentation and closes the lien files. The UBS processed 4,604 special assessments for the 1995-96 tax rolls and 4,320 special assessments for the 1996-97 tax rolls. The County processes these delinquent Recycle Plus bill assessments at no additional cost. The City receives payment for virtually 100 percent of the special assessments it places on the tax roll by June of the following year.

The special assessment process is shown in Diagram II.

DIAGRAM II

ILLUSTRATION OF THE UBS SPECIAL ASSESSMENT PROCESS



When compared to the lien process, the special assessment process is much less complicated and far less labor intensive.

Other City Departments Use A Simple Assessment Process Instead Of A Lien Process

Several other City departments levy fees against property owners for services rendered and place special assessments on property tax bills. However, our review has revealed that no other City department is required to process lien documents. For example, delinquent sewer charges that have been previously billed to the owner may be placed on the tax roll without filing lien documents prior to the assessment. Code section 15.12.670, relative to delinquent sewer charges, states that:

Any and all delinquent payments may be placed on the tax roll, and collected with property taxes, as provided in Section 15.12.550.

Code Section 15.12.550 provides that:

The amount of the charges shall constitute a lien against the lot or parcel of land against which the charge has been imposed as of noon on the first Monday in March immediately preceding the date of the levy.

Weed abatement, refuse abatement, and sewer lateral repair/installation fees may also be collected as special assessments (Code sections 9.12.500 and 9.12.580). The City assesses weed

abatement costs after the weed abatement service is performed. In 1995-96, the City sent \$85,000 in weed abatement special assessments to the County and received payment in full.

Chart II compares the UBS lien process to the special assessment process that other city departments use. It shows the dramatic simplification which is possible under a straight assessment process.

CHART II

COMPARISON OF LIEN PROCESS TO SPECIAL ASSESSMENT PROCESS

(Not Available) - Please call office at 408-277-4601

In our opinion, the UBS should eliminate its lien function and instead rely strictly on the special assessment process to collect delinquent Recycle Plus bills. The City and its delinquent Recycle Plus customers will benefit as follows if the UBS eliminated its lien function:

- The workload of the \$800,000 per year UBS Lien Unit would be reduced by more than 90 percent; and
- Recycle Plus customers with delinquent bills would save \$800,000 per year in lien fees.

The UBS Lien Unit's Workload Would Be Reduced By More Than 90 Percent

The UBS lien process requires its 6 FTE to handle more than 150,000 documents per year. These 150,000 documents are a function of multiple NOILS, lien filings and lien releases as a result of multiple liens against the same property. In addition, the UBS Lien Unit staff must make and handle copies of these multiple documents for the County and the property owner.

We estimate that eliminating the UBS lien function and relying strictly on the special assessment process to collect delinquent Recycle Plus bills would reduce the volume of documents the Lien Unit handles from 150,000 per year to only 10,000 per year. Processing these delinquencies once a year as special assessments instead of the UBS lienning these

delinquencies up to six times per year plus processing them as special assessments, would significantly reduce the UBS Lien Unit's workload as shown in Table IX.

TABLE IX

**COMPARISON OF PAPER FLOW CURRENT LIEN-TO-ASSESSMENT
PROCESS TO PROPOSED SPECIAL ASSESSMENT PROCESS**

Lien Unit Activity	Number Of Documents Required Under	
	Current Lien-To-Assessment Process	Special Assessment Process
Property owner notification:		
NOILs/NOIAs*	27,000	5,200
NOIL/NOIA copies	27,000	5,200
Lien filings:		
Lien documents	19,500	0
Lien copies	39,000	0
Lien release filings:		
Lien release documents	19,500	0
Lien release copies	23,400	0
Totals	155,400	10,400

* **NOIL** = Notice of Intent to Lien

NOIA = Proposed Notice of Intent to Assess

As shown above, strictly using the special assessment process would reduce the UBS Lien Unit's document handling volume by more than 90 percent. In addition, the Lien Unit manually enters thousands of lien transactions annually onto its Lien Master PC spreadsheet. By eliminating the UBS lien function, the Lien Unit would be relieved of the need to maintain its Lien Master PC spreadsheet.

Delinquent Recycle Plus Customers Would Save \$800,000 Per Year

The UBS lien function is a cost-recovery activity. The UBS recoups the cost of its Lien Unit by charging its delinquent Recycle Plus customers a \$41 lien fee. Table X summarizes the UBS lien fee revenues from 1994-95 through 1996-97.

TABLE X
THE UBS LIEN FEE REVENUES
FROM 1994-95 THROUGH 1996-97

Fiscal Year	Lien Fee Revenues
1994-95	\$1,279,538
1995-96	765,388
1996-97	760,000*

* *Estimated*

We estimate that by eliminating the UBS lien function, delinquent Recycle Plus customers would save about \$800,000 per year in the form of avoided \$41 lien fee payments. It should be noted that eliminating the cost of the lien function, which is covered by the \$41 lien fee, will not affect the rates that other customers pay.

Delinquent Recycle Plus customers also pay approximately \$405,000 in \$15 NOIL penalties. NOILs would be eliminated if the City Council eliminates the lien process. This would reduce IWM fund revenues by \$405,000. We recommend that the City Council direct Finance and ESD to prepare a revised delinquent fee and penalty schedule that results in a revenue-neutral impact on the IWM fund should the lien process be eliminated. For example, the Recycle Plus program could offset the loss of NOIL penalty revenue with a \$15 Notice of Intent to Assess penalty (\$78,000) and by raising the late fee from \$5 to \$8 (\$330,000).

#1 We recommend that the City Council (1) revise the Municipal Code to remove the Recycle Plus lien requirement, (2) direct the Finance Department to use the special assessment process to collect delinquent Recycle Plus fees, and (3) direct the Finance Department and ESD to prepare a revised fee and penalty schedule that results in a revenue-neutral impact on the IWM fund. (Priority 2)

*An Accelerated Special Assessment Process
Would Increase Recycle Plus Revenues By Nearly \$300,000
On A One-Time Basis And Reduce
The Recycle Plus Program's Exposure To Non-Payment*

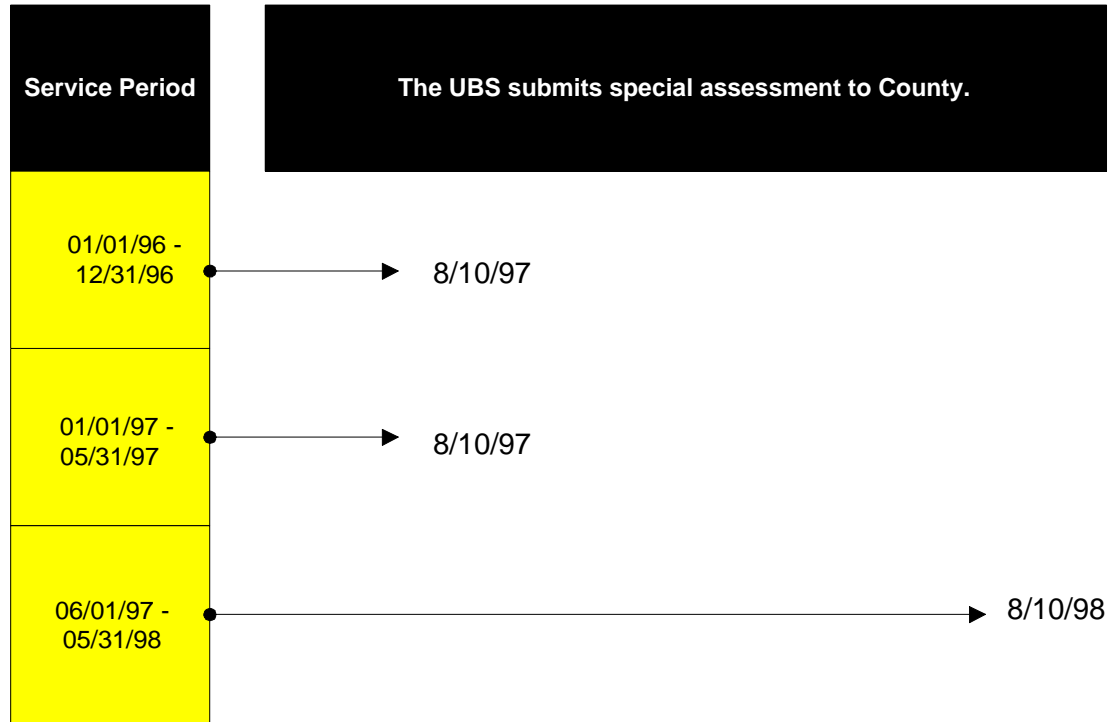
The UBS processes lien amounts as special assessments only for unpaid balances that have been delinquent for more than six months. For example, the special assessments that the UBS submits to the County in August 1997 will be for delinquent amounts resulting from January through December 1996 billing cycles. Similarly, the UBS would not submit January through December 1997 billing cycle delinquencies to the County as special assessments until August 1998 as shown in Diagram II on Page 28.

It should be noted that the UBS only transfers lien amounts to the special assessment property tax roll. As a result, any 1996 service period delinquency late fees and penalties that the UBS does not charge until 1997 would not be included in the special assessments sent to the County in August 1997. Instead, the UBS would include these late fees and penalties related to 1996 service periods as special assessments in August 1998 - as much as 24 months after the delinquencies occurred.

The City could reduce its exposure to delinquent Recycle Plus accounts by using the property tax special assessment process for amounts delinquent 60 days or more as of the August submittal date. Accordingly, in August 1997, the UBS would process special assessments for delinquent balances, fees, and penalties from the January 1996 to May 1997 billing cycles. Thereafter, the special assessments the UBS sends to the County in August each year would be for billings from June of the previous year through May of the current year. The City would receive payment on the January 1997 through May 1997 service period Recycle Plus bills and associated fees and penalties 12 months earlier, as shown in Diagram III.

DIAGRAM III

ILLUSTRATION OF THE PROPOSED ACCELERATED ASSESSMENT PROCESS



We estimate that if the City revised its UBS policy to record special assessments with the County for all amounts delinquent 60 days or more as of the August submittal date, the City would collect \$165,000 in Recycle Plus bills and \$110,000 in late fees and penalties twelve months earlier than it would otherwise. Thus, in the first year of the accelerated special assessment cycle, the City would collect \$275,000 on a one-time basis, and earn an additional \$16,000 in interest earnings.

In addition, accelerating the special assessment process would eliminate an exposure to nonpayment the Recycle Plus program would otherwise face. Specifically, absent the lien process, delinquent Recycle Plus bills for the January 1, 1997 through May 31, 1997, service period shown above in Diagram III would be exposed to nonpayment under the current special assessment process should the property owner sell the property before August 1998. Under the accelerated

special assessment process shown in Diagram III, the Recycle Plus program's exposure to such nonpayments would be reduced by one full year.

Retain Property Owner Notifications

It should be noted that our review also revealed that simply notifying property owners about delinquent Recycle Plus bills is an effective way to secure payments. In other words, when the tenant in a rental property is responsible for paying the Recycle Plus bill, the NOIL letter that kicks off the lien process may be the first notice that a landlord receives that a tenant has let their account go delinquent. Our review revealed that many property owners pay delinquent Recycle Plus bills after receiving the NOIL but prior to the UBS filing liens. For example, the Lien Unit sent out 4,546 NOIL letters in a recent lien cycle, but placed only 2,970 liens. This means that more than one third of the delinquent Recycle Plus bills were paid or resolved as a result of NOIL letters. Should the City decide to abandon the lien process, it would still be appropriate to send a similar notice to property owners -- a notice of intent to place special assessments. In our opinion, such notices can reasonably be expected to be as effective as the NOIL letters in getting property owners to pay delinquent Recycle Plus bills.

Delinquent Balances Should Remain On Recycle Plus Bills

In addition, if the City were to eliminate the lien function, delinquent balances should remain on the customers' bills until transferred to the property owner's tax bill as a special assessment. Under the current process, lien amounts, including late fees, disappear off the customers' bills. In our opinion, showing delinquent Recycle Plus balances on customers' bills provides a reminder and a payment incentive and does not give the false impression that the UBS has forgiven the unpaid balance.

#2 We recommend that if the City Council eliminates the lien function, the Finance Department should (1) use the special assessment process to collect Recycle Plus Fees that have been delinquent 60 days or more as of the County Tax Collector's special assessment submittal deadline, (2) notify property owners of intent to assess delinquent Recycle Plus bills, and (3) keep delinquent balances on Recycle Plus customer bills until they are assessed. (Priority 2)

**The UBS Customer Service Function Largely Duplicates
What The Service Providers Do For The Same Customers**

During the planning phase of the Recycle Plus program, the Administration recommended and the City Council agreed that all customer calls would be directed into the UBS customer service phone lines at 277-2700. The benefits of a single customer service phone number include: (1) making it less difficult for customers who would otherwise be dealing with multiple haulers, and (2) coordinating CSR training at one location. Thus, the Customer Services Representatives (CSRs) at the UBS handle all customer calls including service issues, billing issues, complaints, and questions. The haulers receive very few calls directly. The UBS has implemented a system of direct access lines to the haulers to facilitate bringing the haulers onto the phone line with the customer in a three-party conversation.

Duplicative Customer Service

UBS written procedures outline when the CSR at the UBS should bring the hauler's CSR on the line for a three-party conversation. The functions of the UBS' and the haulers' CSRs are parallel and often overlap--a situation that can be frustrating for all parties. Customers sometimes get irritated when they have to repeat the same information to the haulers' CSR that they just gave to the CSR at the UBS. Customers have also indicated that the three-party conversations between the customer, the UBS, and the haulers' CSRs are sometimes confusing.

In addition, our observations of the call-answering process revealed that transferring calls to the haulers' CSRs in three-party conversations dramatically increases the length of a call. We reviewed phone system reports for customer calls to the UBS for a one month period and found that (1) for 60 percent of the customers who called the UBS, their call answering time was more than one minute and (2) the average talk time for a call to the UBS was more than three minutes. In our opinion, because these averages include many lengthy three-party conversations, average call answer and talk times could be reduced if haulers handled service calls directly.

Only 16 Percent Of Customer Calls Are Strictly Billing-Related

Our review also revealed that haulers' CSRs could handle the vast majority of customer calls without going through the UBS. Specifically, we reviewed call code summary reports from the UBS database and call management systems reports from the UBS phone system for four weeks during July and August 1996. The UBS received 14,300 calls during the four weeks we reviewed. Of these calls:

- 2,300 (16 percent) were billing issues, such as LIRA application requests, ownership/address changes, billing questions, or adjustment requests;
- 1,800 (13 percent) were hauler-related service issues with billing implications, such as requests for bulky goods pick-up, upsizing or downsizing a cart, reporting a lost or stolen cart, or a new service location;
- 3,800 (26 percent) were hauler-related service issues without billing implications, such as missed pick-ups, receipt of a non-collection notice, or reporting a broken cart; and
- 6,400 (45 percent) the UBS CSRs did not code the call. According to the UBS these are predominantly information-only type calls.

The UBS is staffed to handle 100 percent of these calls. However, as shown above, only 16 percent of customer calls to the UBS were strictly related to billing issues that only a CSR with access to the utility billing database could handle. In addition, the haulers are staffed to

handle hauler-related service issues, or at least 39 percent of calls in the above analysis. Haulers could theoretically handle these customer calls directly by scheduling and delivering requested services and notifying the UBS of any billing implications. Because haulers are already staffed to handle service-related calls, we assume the haulers could take these calls directly at no additional cost.

Redirecting Customer Calls

The UBS and the Environmental Services Department (ESD) have only publicized the one phone number (277-2700). Thus, some UBS customers may not know their hauler or their hauler's phone number. Accordingly, to redirect customer calls away from the UBS and to the appropriate hauler, the City would either need to print hauler phone numbers on customer bills or establish a manual or automated switchboard.

The City recently extended hauler contracts to the year 2002. Thus, haulers have a long-term, albeit sometimes anonymous, relationship with their Recycle Plus customers. Furthermore, from the customers' perspective, each resident only has at most two haulers. For example, residents of District A have Greenteam for garbage and recycling, and BFI for yardwaste. Residents of District B and C have Western/USA Waste for garbage and recycling, and Greenwaste Recovery for yardwaste.

With the current UBS and hauler relationship intact, the City could begin directing strictly billing-related calls to the UBS, and service-related calls to the haulers. On service-related calls with billing implications, the haulers could take the call, schedule the service, and forward billing information to the UBS. While coordination between the UBS and the haulers would be necessary, it would be invisible to the customer. Under the current system, the coordination between the UBS and the haulers usually takes place in a three-party phone conversation that is clearly visible to the customer.

In addition, haulers may be able to offer a more proactive approach to customer complaints because hauler CSRs are much closer to the point of service than are the UBS CSRs. When a customer has a service problem, they usually want to talk to their Recycle Plus truck driver. In fact, one customer suggested that we put Recycle Plus truck drivers on the phones periodically to hear customer complaints. If customers cannot talk to their Recycle Plus truck driver, the next best option is to talk to someone who can talk to their Recycle Plus truck driver. For example, BFI has a "buddy system" for their CSRs and drivers. Specifically, BFI assigns each driver to a designated CSR, thereby providing drivers with an immediate customer service contact point.

Duplicative Computer Databases

The City's two residential garbage and recycling contractors, Greenteam and Western/USA Waste, maintain customer databases for their collection districts. Both haulers have computer databases that include customer name, telephone number, address, cart size, cart serial number, route number (which indicates collection day), frequency of pick-up, on-premise pick-up, notes on customer contacts, and history of service requests such as the number of items in bulky goods pick-ups. The UBS database includes much of the same information.

However, in spite of the extensive databases both the UBS and the haulers maintain, neither the City nor the hauler has access to complete customer account information. This is because the UBS and the haulers' databases perform different functions. For example, the City's database does not have records of hauler work orders, non-collection notices, nor driver records of no set-outs. Similarly, the haulers' databases include neither rate codes nor payment histories. As a result, there is no one person or entity that a Recycle Plus customer can call to get complete information about their account.

Haulers Prepare Quarterly Service Reports For ESD

The Integrated Waste Management Division (IWM) of the ESD coordinates the Recycle Plus Program. The two residential haulers prepare voluminous quarterly service reports for IWM contract managers. These reports include tonnages collected and recycled, calls handled, and number of missed pick-ups. In addition, the residential yardwaste haulers provide IWM contract managers with monthly and quarterly reports on daily tonnages collected, participation rates, and phone calls handled.

An argument for keeping the UBS in-house is to ensure accurate contractor performance statistics. However, our review revealed that although the UBS tracks individual phone calls and summary call statistics, its records and reports do not reflect hauler performance. Specifically, while the UBS database includes information about customer calls for service, it does not necessarily show how or if the hauler resolved the call. For example, if a customer calls the UBS about a missed pick-up, the CSR at the UBS records the call in the customer's record in the UBS database, and initiates a three-party conversation between the customer, the UBS, and the hauler's CSR. The hauler's CSR also records the call in the hauler's database, but, unlike the UBS, the hauler's database also shows the disposition of the call. Examples of customer call dispositions that would be in the hauler's database include a work order issued, a record of a non-collection notice, or a record of a non-set-out. Haulers can tabulate this information from their databases. The UBS cannot tabulate such information because its database does not necessarily contain information regarding service call resolution.

The residential garbage and recycling contracts between the City and the haulers spell out several specific performance measures including:

- **Missed pick-ups** - 24 hour turnaround (Greenteam and Western)
- **Cart exchanges** - 15 day turnaround (Greenteam); 30 day turnaround (Western)

- **Bulky goods pick-up** - 7 day turnaround (Greenteam multi-family); no turnaround specification in other contracts

These contracts allow the City to withhold payment if the contractor violates material provisions of the agreement. The UBS has some data about the number of customer calls related to these service issues. However, the UBS does not track contractor performance against these performance measures, and does not have any formal responsibilities for doing so. As a result, IWM contract managers in the ESD already rely on the contractors' reports and other supporting documentation to assess contractor performance.

Reasons For Overlapping Responsibilities

Obviously, duplicative customer service operations increase costs for all parties. The UBS usually has eight to twelve CSRs answering phones. At the same time, Western/USA Waste and Greenteam each have three to six CSRs answering phones. The yardwaste contractors also have CSRs on staff.

The UBS has been working with the haulers to develop procedures and phone scripts to avoid repetition while they are on the phone with the customer. In addition to refining phone scripts, the UBS has begun taking orders for oil jug and bin deliveries. A listing of these orders is faxed to the hauler at the end of the day rather than transferring each call to the hauler individually while the customer waits on the line.

The City chose to use and publicize one phone number (277-2700) for customer convenience because of multiple haulers and to keep control of customer data. This was important to the City because of what happened in 1986 when the City terminated its garbage contract with BFI who in turn refused to release customer files to the City.

The accuracy of the customer data was also important to the City because it had concerns that the previous hauler's database contained incomplete or inaccurate information. Specifically, in May 1995, the UBS database contained 15,000 more service locations than WMI had reported in June 1993. The City saw this as evidence that WMI had not billed all of its customers, thereby reducing revenue to the City. However, our review revealed that the 15,000 difference

in service recipients was in large part due to a change in the billing structure of the program and not because of any failings on the part of WMI. More specifically, when WMI was the contract hauler, multiple single-family units on one parcel were treated as a single account and allowed to share service. The Recycle Plus program now, however, requires each single-family service unit to have individual carts and be billed as an individual service location. It should be noted that the City has had its own problems clearing inactive accounts from its records. Our review revealed that by summer 1996 the UBS database contained 3,500 inactive accounts which the UBS staff needed to review for deletion.

In addition, when the Recycle Plus program was established, the City wanted to maintain control of revenues. According to an April 1991 memorandum to the Environment Committee,

Placing all billing and customer service responsibilities with the collection contractor removes a large administrative burden from City staff, but leaves the City in a weak position relative to the contracted hauler, since the hauler pays the City, and not the other way around. The Administration feels that control of the payments means control of the relationship between the City and the contractor.

Furthermore, the City was concerned about maintaining controls over payments to the contractors. The Recycle Plus hauler payments for weekly garbage collection services are based on the number of service recipients. As a result, the risk that haulers will over-report the number of service locations has been a City concern since the beginning of the Recycle Plus program. For example, in January 1997 the haulers reported a total of 746 more service recipients per month than the UBS database indicated. The causes of these discrepancies between the UBS and haulers include:

- Location is serviced by other hauler;
- Location is in county pocket (not a UBS customer);
- Duplicate addresses, parcel numbers, and/or service location numbers;
- Multipliers for mobile homes; and

- Vacant lots.

The Recycle Plus contract managers in the ESD rely on the number of service recipients in the UBS database to calculate the contractors' payments. City staff point to these on-going discrepancies as justification for the City maintaining its own Recycle Plus database. However, the City can protect itself from the situation in which it found itself in 1986. Specifically, the City could require the Recycle Plus haulers to provide the City with complete customer information databases and to update those databases on a regular basis. Further, the ultimate control against haulers exaggerating the number of customers is the bi-monthly billing process wherein customers review their own bills and call the UBS (or other billing service) with any billing complaints or questions. In addition, the Post Office returns undeliverable bills to the sender. Finally, the City could continue to segregate the customer database and bill calculation functions from the bill printing and revenue collection functions.

Streamlining Customer Service Could Save Up To \$400,000

The UBS organization chart shows that more than half of the UBS' staff are assigned to customer service (22 out of 42 FTEs). Therefore, assuming that about half of the UBS personal service budget is for customer service, the cost for this function is over \$1 million per year. Further, assuming that 40 percent of the UBS customer calls are service related and that Recycle Plus haulers already handle these calls and could handle these calls directly, the UBS could reduce its call volume by as much as 40 percent and associated UBS personal service costs by as much as \$400,000 per year.

#3 We recommend that Recycle Plus haulers handle customer service calls directly. (Priority 2)
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Opportunities Exist For The City To Combine Other City Billing Functions With The UBS

According to the 1994 Computer Systems Masterplan, the purpose of the UBS system was to "*assume City control of garbage billing to improve control over garbage collection contractors, maximize revenue, and facilitate future incorporation of additional City billing functions.*" (Emphasis added)

As currently configured, the UBS database includes all residential properties in the City, but not commercial properties. The upgraded UBS computer system will have more capacity, and the upgraded software is expected to have the capacity to bill other City services including metered services.

Other Jurisdictions Have Consolidated Billing

Other jurisdictions typically have a consolidated billing operation -- that is, they bill for several services. This reduces the proportionate cost of billing each service. For example,

- Sunnyvale bills for refuse, sewer, and water;
- Phoenix bills refuse and water;
- Seattle bills for refuse and utilities, except water; and
- Tacoma bills for refuse and utilities.

Consolidating Sewer Billing Services Could Save \$700,000 Per Year And Increase Interest Income For The City By \$870,000 Per Year

The Treasury Division of Finance (Treasury) processes annual sewer and storm drain assessments for the City's commercial and residential property owners. Treasury forwards these assessments to the County for inclusion on property tax bills. The County charges the City \$715,000 per year to collect sewer and storm drain assessments and remit them to the City.

We estimate that the City could save or earn more than \$1.5 million per year by expanding its utility billing operation to include sewer and storm drain fees. This would require a change in the way that the City bills and collects sewer and storm drain fees. Currently sewer and storm drain fees are billed as special assessments on owners' property taxes. The sewer service and use charge for a single family residence is \$18.96 per month. The storm drain fee is \$3.95 per month. The County collects these assessments and remits them to the City in January and June of each year. The Sewer Billing Unit in Finance (6 FTE) currently processes about 190,000 residential assessments and 6,400 commercial assessments. We estimate that if these accounts were billed bi-monthly through the UBS system, rather than the County's assessment system, we could save more than \$700,000 in County collection fees and earn an additional \$870,000 in interest. Tables XI and XII summarize our calculation.

TABLE XI

**ESTIMATED INTEREST EARNINGS IMPACT OF BI-MONTHLY
SEWER/STORM BILLING ASSUMING 5.7 PERCENT RATE OF RETURN**

	Special Assessments		Bi-Monthly Billing	
Month	Special Assessment Receipts	Cumulative Balance With Interest	Bi-monthly Billing Receipts	Cumulative Balance With Interest
July	0	0	0	0
August	0	0	\$11,922,824	\$11,922,824
September	0	0	0	11,979,457
October	0	0	11,922,824	23,959,184
November	0	0	0	24,072,990
December	0	0	11,922,824	36,110,161
January	\$35,768,472	\$35,768,472	0	36,281,684
February	0	35,938,372	11,922,824	48,376,846
March	0	36,109,080	0	48,606,636
April	0	36,280,598	11,922,824	60,760,341
May	0	36,452,930	0	61,048,953
June	35,768,472	72,394,554	11,922,824	73,261,760
Total	\$71,536,944	\$72,394,554	\$71,536,944	\$73,261,760
Additional Interest Earnings				\$867,206

TABLE XII

**ESTIMATED COST SAVINGS AND REVENUE IMPACT
OF BI-MONTHLY SEWER AND STORM DRAIN BILLING**

Additional interest earnings (from above)	\$ 867,206
No change in assumed personal and in-house computing costs	0
Savings from County 1% collection fee on sewer assessments	715,370
Estimated additional bi-monthly printing/handling charge (assuming 6,400 commercial sewer accounts)	(24,192)
Total Savings And Additional Interest Income	\$1,558,384

As a result of the dramatic cost savings that the City could realize, combining sewer and storm drain fees with Recycle Plus billings is a reasonable option that the City Council should consider.

#4 We recommend that the City Council consider combining sewer and storm drain fees with Recycle Plus billings. (Priority 2)

**Opportunities Exist For The City To Extend The Use
Of Credit Cards To Its Recycle Plus Customers**

The City holds property owners responsible for Recycle Plus payments. Consequently, the UBS only allows the property owner to order or change the level of service. As a result, tenant requests for service are problematic even if the tenant is actually the person paying the bill. For example, a tenant cannot call to arrange a bulky goods pick-up because the owner is potentially liable for the fee. A tenant must either prepay for a bulky goods pick-up and then arrange for the service date, or have the landlord arrange the pick-up. This can be very inconvenient.

If the UBS accepted credit cards, the tenant would have the option of ordering a bulky goods pick-up and using a credit card to pay for the service. There is precedent among other City departments and garbage haulers for accepting credit card payments. In addition, the New Realities Task Force recommended that the UBS investigate accepting credit card payments.

Finally, the UBS staff have indicated that they would welcome being able to offer customers this payment alternative.

The UBS Should Accept Credit Card Payments

In our opinion, there are several beneficial credit card applications at the UBS. For example, a tenant could use a credit card to pay for a bulky goods pick-up, or any customer could use a credit card to pay a delinquent account balance. While the IWM Fund would bear undetermined credit card fees, such fees have not been significant in other departments that allow users of City services to use credit cards to make payments. According to Finance, the City offsets bank credit card fees with interest on its cash deposits.

It should be noted that in a related matter, Finance is working with the SJWC to offer automated cash payment services for Recycle Plus customers.

#5 We recommend that the Finance Department implement a policy of accepting credit card payments for Recycle Plus services. (Priority 2)

**Implementing Accounting And Procedural Changes
Will Increase Recycle Plus Revenues
By \$500,000 On A One-Time Basis**

The UBS procedures manual includes guidelines for recognizing and recording monthly revenue and other transactions resulting from the periodic billing of property owners for Recycle Plus services. The UBS bills and receives about \$4 million per month. On a monthly basis, the UBS uses year-to-date revenue summary information from the UBS database to post Recycle Plus revenue to the FMS. The amount actually posted as Recycle Plus revenue is net of an allowance for liens and write-offs. This allowance is approximately 3.1 percent of total billings. The 3.1 percent allowance accumulates in an allowance account on the City's balance sheet. Treasury staff post cash receipts to FMS on a daily basis.

*Finance Should Account For Delinquent Charges
In A Deferred Revenue Account*

Due to the timing of the lien and assessment process, delinquent charges against Recycle Plus customers may not be recognized as revenue for one or more years. Finance has taken the position that lien and assessment revenues should be deferred until the period in which they are collected. For example, the City did not recognize \$1,412,000 in delinquent balances during 1995-96 that were placed on the 1996-97 property tax rolls. Thus, the UBS deferred the recognition of at least \$1,412,000 in 1995-96 revenues until 1996-97.

The Governmental Accounting Standards Board's Codification states:

Section 1800.124

. . . when property taxes are measurable but not available, the collectible portion (taxes levied less estimated uncollectibles) should be recorded as a deferred revenue when the tax is levied and recognized as revenue when it becomes available . . .

Thus, Finance should use a deferred revenue account to record these delinquent Recycle Plus billings for which the UBS will file special assessments. The chart in Appendix B outlines the accounting transactions the UBS records when recognizing lien revenues and compares it to our recommended approach.

#6 We recommend that the Finance Department (1) use a deferred revenue account to defer recognition of special assessment and delinquent fee revenue, and (2) annually review deferred revenue and make necessary adjustments (Priority 2).

*Improper Use Of The Recycle Plus Allowance
Account And Too High Of An Allowance Rate
Understated Revenues By \$500,000*

As stated above, every time Finance books Recycle Plus billings into the FMS, it records an allowance for liens and write-offs. The percentage rates that Finance uses are 3.85 percent for single-family dwelling billings and 1 percent for multi-family dwelling billings -- an average of 3.1 percent of total billings. For 1995-96, we compared the allowance that the UBS accrued using the 3.1 percent (\$1,440,000) to the actual lien transactions and write-off transactions

(\$990,000). The actual total of liens and write-off transactions related to 1995-96 activity was 2.1 percent of total revenue not the 3.1 percent Finance used. As a result, the allowance rate Finance used for 1995-96 was too high.

Allowance accounts are typically used to record doubtful accounts. Therefore, we recommend that Finance discontinue the use of an allowance account for liens and restrict its use to estimated write-offs. For example, during 1995-96 Recycle Plus accounts receivable write-offs totaled only 0.07 percent of revenues. Therefore, Finance should review the allowance rate and adjust it annually or else the allowance balance will continue to accumulate unnecessarily.

Because the allowance rate Finance applied to billings is too high, an overstated allowance balance has accumulated. By June 30, 1997, we estimate that the balance in the allowance account will be approximately \$990,000.¹ We estimate that \$460,000 of this balance should be transferred to the deferred revenue account per recommendation #6. This would leave approximately \$530,000 in the allowance account. However, we estimate that the allowance for write-offs of Recycle Plus accounts should be no more than \$32,000 or 0.07 percent of an estimated \$46.1 million in annual billings. As a result, we estimate that if Finance adjusts its Recycle Plus allowance and write-off practices to reflect this 0.07 percent factor, the IWM fund would recognize \$500,000 in one-time Recycle Plus revenues during 1996-97 that would otherwise be deferred indefinitely.

#7 We recommend that the Finance Department annually review the allowance rate for write-offs and make necessary adjustments, and recognize excess allowance balances as revenues in 1996-97. (Priority 2)

\$1.4 Million In Recycle Plus Accounts Receivables

¹ As of June 30, 1996, the allowance balance was \$540,000. We assume that Finance will add \$1.44 million to the allowance (3.13 percent of \$46.1 million in billings) and will remove \$990,000 as a result of lien filings (the same rate as 1995-96).

Not Recorded As Of June 30, 1996

Although Recycle Plus billings are initially recognized as revenue or deferred as part of the allowance for doubtful accounts in the FMS, our review revealed that when the UBS files a lien because of nonpayment, it also "removes" the value of the lien from the accounts receivable and allowance balances in the FMS. This "removal" essentially reverses the entry recorded at the time of billing and eliminates the lien amounts from the City's accounting records. As a result, there is a period of time when moneys owed to the City in the form of liens or special assessments are not recorded in either the City's FMS or the UBS database. To keep track of the lien amounts, the UBS uses a stand-alone PC spreadsheet. However, once the UBS turns lien amounts over to the County for special assessment, the UBS removes even those amounts from the PC spreadsheet. The UBS recognizes these lien and special assessment amounts as revenue only when they are paid in cash.

Because of the above accounting practices, the City did not record \$1.4 million in assessments receivable on its financial statements as of June 30, 1996. The failure to record these receivables eliminates a strong internal control over City assets and gives the appearance that the City's financial position is less favorable than it really is. Moreover, authoritative literature prescribes the recording of such receivables on an entity's financial statements. The chart in Appendix B outlines the UBS's recording of accounting transactions when removing liens from the FMS and compares it to our recommended approach.

#8	We recommend that the Finance Department revise its method of accounting for Recycle Plus receivables to ensure that receivables for liens, special assessments, fees and penalties are recorded in the FMS. (Priority 2)
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\$114,500 In Recycle Plus Back-Billed Accounts

During the beginning phase of the Recycle Plus program, several thousand accounts were back-billed for Recycle Plus services. Because of the large amounts that were delinquent, the City Council directed staff to provide these customers with a 12-month extended payment

option. For example, in December 1994, approximately 1,500 accounts that had been overlooked were back-billed for 18 months of Recycle Plus services. Our review revealed that nearly three years later, some of these accounts are still coded as "back-billed" and are exempt from liens, assessments and penalties. As of February 1997, 254 of these accounts were still coded back-billed with a total outstanding balance of \$114,500. Staff at the UBS estimate that more than half of these accounts have never made a payment. The UBS should research these accounts, and if there are still outstanding amounts owed from the back-billed period, the back-billed coding should be changed and those accounts should be subject to a special assessment like all other accounts. By so doing, the UBS could collect as much as \$114,500 on a one-time basis.

#9 We recommend that the Finance Department prepare written procedures regarding the use of the "back-billed" account designation which exempts certain accounts from special assessments and penalties, and remove the back-billed coding from those accounts that are more than 12 months overdue. (Priority 2)

Undocumented Write-Off Policies

In accordance with the Finance Administrative Manual (FAM), when Finance writes off an accounts receivable, both the accounts receivable supervisor and the Director of Finance must approve the write-off. During 1995-96, the UBS wrote off \$33,000 in uncollectible accounts receivable and \$97,000 in one-time billings-in-error from the beginning of the program. This level of write-offs is not unreasonable. In practice, the UBS write-offs are for bankruptcies, foreclosures, changes of address, and billings-in-error. However, the UBS does not have a written policy regarding write-offs. In our opinion, the UBS should document this policy.

#10 We recommend that the Finance Department prepare a written policy clarifying what Recycle Plus write-offs are allowable and reasonable. (Priority 3)

*\$1.4 Million In Accounts Receivable Unreconciled
Differences Between The UBS And The FMS*

The UBS does not regularly reconcile its accounts receivable in the UBS database to the FMS. Our review revealed a \$1.38 million difference between the accounts receivable balance recorded in customer accounts in the UBS database and the balance recorded in FMS. With the cooperation of Finance, we determined that all but \$20,000 of this \$1.38 million difference was caused by an entry error. Finance subsequently corrected the entry error leaving an unreconciled balance as of September 1, 1996, of \$20,000.

Authoritative literature states that "*[r]ecorded balances of receipts and accounts receivable, and related transaction activity should be periodically substantiated and evaluated.*" This objective can be achieved by performing periodic "*[r]econciliation of general ledger balances with subsidiary ledger balances either manually or by computer.*" Therefore, Finance should reconcile the UBS receivable balances recorded in the FMS to the customer account totals in the UBS database on a monthly basis. This will help ensure the accuracy of both information systems and expose any errors needing correction. The UBS should also reconcile UBS subsidiary ledgers including lien and assessment receivables to the balances recorded in the FMS.

#11 We recommend that the Finance Department prepare monthly reconciliations of the UBS customer accounts receivable and lien/assessment receivables to FMS. (Priority 3)

Inadequate Separation Of Duties

Our review revealed an inadequate separation of duties related to the collection of lien payments. A proper separation of duties related to collection of some lien payments requires that

the person in charge of the records never has access to the cash collected. At UBS, there are some instances where the lien unit handles payments and maintains the only customer records on a PC spreadsheet. This situation is a violation of the most basic separation of duties principle and increases the risk of misappropriation of City funds.

#12 We recommend that the Finance Department improve the separation of duties related to the receipt of lien payments to ensure that personnel in charge of recording liens do not handle lien payments. (Priority 3)

The City Should Evaluate The Merits Of Either Retaining Or Outsourcing The UBS

The New Realities Task Force has recommended identifying potential areas that could be subject to competition/privatization. As a result, the Administration has developed a new city policy regarding outsourcing. In the meantime, the UBS billing failure has precipitated City Council and Administration discussions regarding the outsourcing of the UBS, and several vendors have expressed an interest in taking over the UBS billing function. In our opinion, outsourcing the UBS would yield significant overall efficiencies because it would reduce the need for duplicate databases and CSRs. As discussed previously, these redundancies add significantly to the total cost of the UBS. Furthermore, outsourcing the UBS could improve customer service by putting customers directly in touch with haulers, increasing the accuracy of billing and services by simplifying the work order process, and increasing program oversight by centralizing customer service. In addition, outsourcing may yield some economies of scale.

Our review has revealed the following outsourcing options for the UBS services:

- **OPTION 1: Same structure outsourcing the UBS.** Contract with an outside firm to provide all the billing, database, and customer service functions that the UBS currently provides. Because Recycle Plus haulers would be required to maintain largely redundant databases and CSR services, cost savings would probably not be as significant as with other options. Sewer and storm drain billing consolidation would be feasible under this option.

- **OPTION 2: Same structure outsourcing the UBS computer system operations and maintenance only.** In March 1997, the Administration proposed a RFP to outsource the UBS computer system operations and maintenance with the bill printing, mailing and remittance processing services that are already outsourced. This option would involve the reassignment of the duties of only two employees, and would defer further outsourcing action at this time. As a result, neither duplication of CSRs nor duplication of databases would be reduced.
- **OPTION 3: The primary Recycle Plus haulers handle customer service in their districts and another vendor handles the citywide billing.** Contract with an outside vendor to provide database maintenance, bill calculation, sewer/storm drain billing, and billing-related customer calls. Customers would call Recycle Plus haulers directly for service-related issues. This would minimize CSR redundancies but haulers would be required to maintain redundant databases. Sewer and storm drain billing consolidation would be feasible under this option. This option would provide a separation of duties between the haulers and the billing vendor.
- **OPTION 4: Merge billing operations.** Haulers handle customer service while the City contracts with an outside vendor to merge the UBS billing information into the outside vendor's billing system. Sewer and storm drain billing consolidation would be feasible under this option. This option would provide a separation of duties between the haulers and the billing vendor, but segregation of the City's revenues from the outside vendor's revenues would be problematic.
- **OPTION 5: The primary Recycle Plus haulers handle customer service and database maintenance in their districts and another vendor handles bill printing, mailing and remittance processing.** Expand agreements with the Recycle Plus haulers to include database maintenance, bill calculation, and complete customer service in their respective districts. Retain an outside firm to handle city-wide bill printing, mailing and remittance processing (SJWC currently provides this service). This would minimize database and CSR redundancies, while providing a separation of duties between the haulers and the billing service. It would require computer interfaces between the haulers and the billing vendor. Sewer and storm drain billing consolidation could be feasible if the billing vendor could accommodate this option.

- **OPTION 6: The primary Recycle Plus haulers handle all customer service and billing.** Expand agreements with the Recycle Plus haulers to include all the billing, mailing, remittance processing, and customer service functions that the UBS and SJWC currently provide. This would eliminate virtually all redundancies. The separation of duties with regards to revenues would be problematic. However, the City could maintain control over revenues by requiring the haulers to deposit remittances directly to the City's bank accounts. The City could maintain control over customer information by requiring the haulers to provide copies of all Recycle Plus databases. Sewer and storm drain billing consolidation would be problematic unless haulers agreed to accommodate this option.

Table XIII summarizes the City's outsourcing options.

TABLE XIII

SUMMARY OF OUTSOURCING OPTIONS

	Current	Option 1	Option 2	Option 3	Option 4	Option 5	Option 6
Handle service calls	UBS/Haulers	TPA/Haulers	UBS/Haulers	Haulers	Haulers	Haulers	Haulers
Handle billing calls	UBS	TPA	UBS	TPA	Haulers	Haulers	Haulers
Data entry and Database maintenance	UBS/Haulers	TPA/Haulers	UBS	TPA/Haulers	Haulers	Haulers	Haulers
Computer system operations and maintenance	UBS/IT	TPA	TPA	TPA	Haulers	Haulers	Haulers
Bill calculation	UBS	TPA	TPA	TPA	TPA	Haulers	Haulers
Printing/Mailing	SJWC	TPA	TPA	TPA	TPA	TPA	Haulers
Remittance processing	SJWC	TPA	TPA	TPA	TPA	TPA	Haulers
Update billing records	UBS	TPA	UBS	TPA	Haulers	Haulers	Haulers

Note: **TPA** = Third Party Administrator **SJWC** = San Jose Water Company

Establishing Adequate Controls

Major concerns regarding the outsourcing of the UBS function include maintaining adequate controls over:

- Fee revenue collection;
- Contractor payments;
- Contractor performance measurement;
- Customer statistics;
- Customer service; and
- Database ownership, control and access.

In our opinion, there are a variety of controls and procedures that the City could build into outside contracts to protect the City's interests, including:

- Requirements that the contractor deposit customer remittances directly into the City's accounts;
- Requirements that haulers notify the City of customer call resolutions including any action taken and the time required to resolve the call;
- Audit procedures to provide assurance that hauler reports and invoices are accurate;
- Procedures for providing on-line access to customer files and/or haulers to submit current copies of customer database files to the City;
- Procedures for notifying the City of any impediments or delays in customer service, billing, or fee collection;
- Audit procedures to ensure that customers are properly billed; and
- Provisions for liquidated damages and penalties as appropriate.

#13 We recommend that the City Council consider whether to retain all or part of the UBS. (Priority 2)
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The Customer Star Upgrade

According to the City Manager's memorandum dated March 25, 1997,

. . . the City Administration has reviewed whether all or some of the UBS operation should be contracted-out. Based on a number of considerations, I determined that it was in the City's best interest to outsource the operation and maintenance of the computer system. Bill printing, payment and cash processing are already outsourced.

Furthermore, according to the Administration, a full-blown RFP process to outsource computer system operation and maintenance together with the bill printing and remittance processing services that are already outsourced could take as long as two and one-half years.

Meanwhile, the UBS conversion from Socrates to Customer Star on new computer hardware has been on hold since the loss of database information in September 1996. The UBS customer files are current, and historical data is available. However, Finance officials have expressed concern about the possibility of additional computer problems and, as a result, would like to proceed immediately with the Customer Star conversion.

Table XIV compares the current system configuration to the proposed system configuration. The City has already purchased or leased the major components of the proposed system.

TABLE XIV

COMPARISON OF CURRENT AND PROPOSED SYSTEM CONFIGURATION

Components	Current System Configuration	Proposed System Configuration
Application software	Socrates	Customer Star II
Computer hardware	Compaq Proliant 166 Mhz, with 90 MB of RAM, a 2.1 GB internal hard drive, and 5-2 GB hard drives in a RAID-5 configuration (10 GB)	DEC Alpha model 2100 with 512 MB of RAM, and 15-2.1 GB hard drives in a RAID-5 configuration, and 5-2.1 GB hard drives in two RAID-1 configurations (42 GB)
Operating system	OS/2 version 2.11 (IBM)	DEC Unix version 3.2D-1
Network server	Dell Powerhouse 2100, 200 Mhz with 90 MB of RAM	Same
Network card	3Com etherlink III	Same
Network software	Novell 3.11 running Dosnp, IPXODI and Netbios	Same
Database platform	SQL Server version 4.20b (Microsoft - originally a Sybase product)	Oracle version 7.2.2.3
Back-up software	Sytos Premium version 2.1	Unix or Oracle

According to the Administration, the existing operating system software (particularly OS/2 and SQL Server) is unsupported and, as a result, the computer system is "unstable". Our review confirmed that IBM released OS/2 version 2.11 in early 1993 and provided technical support to its users only through 1996. The common practice when a vendor no longer provides technical support is for the user to locate a consultant or technical expert who maintains expertise in the particular software version that the computer system uses. This is what the UBS did subsequent to the September 1996 data loss.

The system did not "crash" in September 1996. In other words, the software did not fail. Further, the UBS has been running on Socrates for the last three and one-half years without any major system problems. It should also be noted that the size of the database has been dramatically reduced. Although the database was near capacity on the existing hardware, the

database is now a fraction of its former size. Specifically, database files that occupied 8 gigabytes of hard drive space prior to the database loss now only occupy 1.1 gigabytes of hard drive space.

Although the current UBS system is not optimum, there is no guarantee that the conversion to Customer Star would be easy, painless, or quick. The Administration estimates that the conversion process will take two to three months, but has indicated that it could take as long as twelve months.

Our review of the three locations where EDS has installed Customer Star II indicates that installation times varied from two to eight months. Specifically, the three locations where Customer Star II is up and running are:

- **Horizon Energy** (Philadelphia, P.A.) has been in production using Customer Star II since December 23, 1996; implementation took 60 days. They have 5,000 customers, and bill for energy services.
- **United Water Resources** (Jersey City, N.J.) has been in production using Customer Star II since July 1996; implementation took 110 days. They have 30,000 customers and bill for water and sewer service.
- **Providence Water Board** (Providence, R.I.) has been in production using Customer Star II since March 1996; implementation took 6 to 8 months. They still do not have all their management reports, including accounts receivable, up at this time. They have 70,000 customers, and bill water services quarterly.

It should be noted that of the above installations, the Providence Water Board had the most difficulty implementing Customer Star II, and that their system most closely resembles what the UBS system would look like after upgrading to Customer Star II. Specifically, the Providence Water Board operates on an Oracle database platform similar to the proposed UBS system configuration. It should also be noted that none of these installations bill for garbage services. Finally, with its 200,000 customer accounts, the UBS is significantly larger than the three installations where EDS has installed Customer Star II .

As of February 1997, the UBS has \$379,000 in outstanding purchase orders and approved contracts for licensing and services related to its Customer Star system. They include:

- Wellsco - license agreement \$205,000

• Inventa - conversion services	64,500
• EDS - conversion services	52,500
• EDS - maintenance agreement	31,000
• Oracle - conversion services	16,000
• Exe, Inc. - technical services	<u>10,000</u>
Total	<u>\$379,000</u>

In March 1997, Finance recommended adding an additional \$53,000 to the above total. Specifically, Finance recommended amending an existing EDS agreement for conversion services to a total cost not to exceed \$170,000. In order to accomplish this, Finance has funds available from the following sources:

• Unexpended funds from existing EDS agreement for conversion services shown above	\$ 52,500
• Terminate the Inventa contract shown above and transfer the unexpended funds to EDS for conversion services	64,500
• Transfer unexpended funds from the \$250,000 EDS database restoration contract that the City Council approved in November 1996	<u>53,000</u>
Total available for amended EDS agreement	<u>\$170,000</u>

Thus, the current outstanding estimated cost for the conversion and implementation of the Customer Star system is \$432,000. If the City Council decides to outsource the UBS and terminate the Customer Star conversion project, the City Attorney's Office has advised that outstanding contracts and purchase orders totaling as much as \$174,000 could be canceled. However, the City Attorney's Office has reviewed the Wellsco agreement and advised us that the \$205,000 Wellsco license fee should not be considered as avoidable should the conversion process not take place. Under the December 1993 agreement between the City and Wellsco, the license became effective upon delivery of the licensed versions of the software which the City has been using since that time.

The City bought what is commonly known as "vaporware" when it contracted with Wellsco in July 1993. In other words, the City bought software under development. The May

1993 scope of services that the City Council approved specified that final installation would take place within two years. However, as of March 1997, the project is not complete. Nonetheless, according to the City Attorney's Office, the payment schedule was structured such that the City is obligated to pay Wellsco the above \$205,000 regardless of whether the City upgrades to Customer Star II or not.

According to the Administration an "*immediate conversion to Customer Star*" would take approximately three months. The Administration estimates that a RFP process to convert to a third-party firm on an entirely different system would take from 17 to 30 months. We have attached the Administration's estimated timeline in Appendix C.

Local Vendor Interest In Providing Utility Billing Services

According to the City's two primary Recycle Plus haulers (Greenteam and Western/USA Waste) and the SJWC, they can provide the following services that the UBS currently provides:

- Service and/or bill call handling;
- Data entry and database maintenance;
- Bill calculation, printing and mailing; and
- Remittance processing

The haulers are interested in expanding the scope of the services that they currently provide to the customers in their respective districts. SJWC is interested in expanding the scope of the services that they provide citywide. According to these vendors, they could provide these services to the UBS and could produce bills within 4 to 6 weeks.

Therefore, we recommend that the Administration evaluate the capacity of the haulers and SJWC to handle the Recycle Plus customer billing function.

#14 We recommend that the Administration evaluate the capabilities of Greenteam, SJWC, and Western/USA Waste to provide utility billing services for the City's Recycle Plus program, and report back to the City Council regarding the results of that evaluation. (Priority 2)

*The Need To Competitively Bid The Outsourcing
Of The UBS Billing Function*

The City Attorney's Office informed the City Auditor's Office as follows regarding the need to competitively bid outsourcing the UBS billing function:

The provision of billing services is subject to the San Jose Municipal Code provisions which require that in procuring contracts for services, three proposals shall be obtained where practicable. The procedure ordinarily followed in obtaining competitive proposals is the Request For Proposal (RFP) process.

It is ordinarily practicable to obtain competitive proposals when there is a reasonable chance that three or more potential contractors are likely to submit responsive proposals and there is sufficient time to conduct a competitive process and evaluate the proposals. (Emphasis added)

Given the extenuating circumstances of the current UBS situation and the Administration's concern about the current computer system's instability, there may not be sufficient time to conduct a 17 to 30 month RFP process. Specifically, the City Manager's March 25, 1997, memorandum to the City Council stated in part:

While we have recovered from the recent data loss and are taking precautionary measures to support the existing system, the system is outdated by systems standards and, consequently, its components are not supported by many vendors. As a result, further system problems could cause the system to go down, and recovery efforts could be lengthy and costly. . .

. . . In the event of a system crash, the City would risk facing the possibility of either an expensive system restoration effort or, under the worst case, not being able to recover the system at all.

In our opinion, the City Council should assess the need to upgrade to Customer Star II based upon the administration's evaluation of the capabilities of Greenteam, SJWC, Western/USA Waste to provide UBS billing services, and the need for a lengthy competitive RFP process.

#15 We recommend that the City Council assess the need to upgrade to Customer Star II based upon the Administration's evaluation of the capabilities of Greenteam, SJWC, and Western/USA Waste to provide UBS billing services, and the need for a lengthy competitive RFP process.
(Priority 2)

Should The City Opt To Retain The UBS, Improvements Are Needed

Our review revealed that if the City opts to retain the UBS, improvements are needed. The City began the UBS four years ago with the expectation that it would prove cheaper and more effective than the alternatives. Our review has revealed that certain improvements are needed if the City opts to retain the UBS.

If the City retains the UBS, the first concern is to finish the development of the UBS software and database system. Expanding the use of new information technologies results in new sources of risk that need to be balanced with controls in a cost-effective way. The City has experienced the cost of those risks first-hand as a result of the September 1996 database failure. According to both the UBS and IT, the "Socrates" system is minimally functional on an outdated hardware and software platform. The planned conversion would be necessary to correct these deficiencies. As was noted above, there is no guarantee that this process will be easy or quick.

The UBS Should Prepare A Data System Contingency Plan

Our review revealed that the UBS does not have a computer contingency plan. Specifically, the UBS computer system was not included in the Finance Department's disaster recovery plan as of June 1996. City policy calls for disaster recovery plans and expects that back-up procedures are complete and tested. City computer contingency plans *"call for large computer system software and data to be restored within two days of a major hardware failure or within two weeks of a major disaster."* Departmental computer contingency plans are to be updated annually. Last year's computer contingency plan instructions stressed the importance of testing back-up disks or tapes to determine that they are adequate for restoration of the system.

The UBS' failure to verify its back-up disks or tapes contributed to the UBS' inability to recover from the September 1996 computer system's crash. In addition, the UBS has learned a difficult lesson about the importance of carefully constructing restoration routines. Specifically, according to Finance staff, they could have recovered the data on their hard drive after the software maintenance failure had they not over-written the data on the hard drive with data from the faulty back-up tapes.

#16 We recommend that if the City retains the UBS computer system, the Administration prepare a computer contingency plan for the UBS and clarify back-up procedures. (Priority 2)

Contingency Plans For Other Departments

According to which City officials we interviewed, we got varying opinions about the existence and completeness of contingency plans for other City computer systems. We also got varying opinions about the adequacy of back-up procedures. There is, however, general agreement on the necessity of computer back-ups. According to Management Information Systems Conceptual Foundations, Structure, and Development by Davis and Olson,

In addition to . . . major disasters, there need to be procedures to recover from errors or failures to follow correct procedures. The general approach to recovery is backup by creating copies of the files. Procedures are also established to recreate current processing status using the backup copy and all transactions made subsequent to the last backup.

In light of the City's recent experience with the loss of data and function at the UBS, we recommend that IT review the adequacy of major computer system back-up procedures and computer contingency plans throughout the City. According to the Administration, IT has already assessed the back-up vulnerability of the City's mission-critical computer systems and undertaken corrective measures as necessary. In addition, the City Auditor's Office will recommend in its proposed 1997-98 audit workplan that we revisit the study we performed nearly ten years ago recommending the completion of such plans. Specifically, in the City

Auditor's Report #87-08, A Control Review of Information Systems Contingency Plan, we stated,

It is generally accepted that modern business and government organizations need to determine if any of their electronic data processing (EDP) activities are critical to their operations and prepare a contingency plan for any critical systems. Such a plan should specify when, where, and how critical EDP activities will be performed if all or part of the computer system becomes dysfunctional. The Information Systems Department operates three types of computer facilities. Our review revealed that 1) a written contingency plan exists for only one type of facility, 2) the existing plan needs to be updated, and 3) there may be other critical EDP activities not included in the existing plan. As a result, the City is exposed to the risk that critical EDP activities may be lost to the City for periods of time that exceed tolerable limits. The City Administration recognizes the need to prepare contingency plans for critical EDP applications and has already started the process.

#17 We recommend that IT review the adequacy of all major City computer system back-up procedures and computer contingency plans. (Priority 2)
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*The City Should Transfer Operational Responsibility
For Its UBS Computer System To The IT Department*

It is the City's usual practice for the IT department to operate and maintain the City's major computer systems. For example, IT is in charge of FMS computer operations. The FMS hardware is physically located at IT and IT operators are responsible for tape back-ups and recoveries, while Finance is responsible for the content of the FMS database. This organizational arrangement benefits the City by making IT responsible for FMS operations, while departments are free to focus on the information in the FMS.

It should be noted that the physical environment at IT is specifically designed for computer systems. In addition, the IT department has a higher level of expertise to deal with computer system malfunctions, back-up failures, or system restorations. Furthermore, the planned conversion of Socrates to Customer Star will take place on a DEC/Unix platform. IT has employees who are familiar with these "industrial strength" systems. Therefore, we recommend that the UBS computer system be moved to the IT computer room and that IT operate and maintain the UBS computer system. In our opinion, this is a prudent course of

action in light of the recent three-month billing failure and its associated \$600,000 in costs to the City.

#18 We recommend that if the City retains the UBS computer system, the Administration relocate the UBS computer system to the IT computer room and that the IT department operate and maintain of the UBS computer system. (Priority 3)

The UBS Should Hire A Permanent UBS Database Administrator

A major threat to any information system is employees accidentally entering bad data into the system. As a result, all organizations should routinely clean-up the data in any large computer system. According to Management Information Systems Conceptual Foundations, Structure, and Development by Davis and Olson,

Systems can run down and decay or can become disordered or disorganized. Stated in system terminology, an increase in entropy takes place. Preventing or offsetting the increase in entropy requires inputs of matter and energy to repair, replenish, and maintain the system.

Thus, "[t]he maintenance of data quality requires continuous inputs of resources."

A database administrator usually performs and/or coordinates this function:

When there is sharing of data among many users, the responsibility for the accuracy of the data must be clearly established. This is often done through a senior employee, known as the data base administrator (DBA), who is independent of both users and programmers.

The September 1996 UBS database failure and loss of database information illustrates the importance of in-house expertise for a database the size and importance of the UBS. In our opinion, should the City retain the UBS, a database administrator would provide the City with a prudent level of assurance over the integrity and accuracy of customer data in the UBS and protection against future UBS failures.

#19 We recommend that if the City retains the UBS computer system, the Administration request that the City Council authorize a database administrator position at the UBS. (Priority 3)

Controls Over Detecting Database Errors Should Be Improved

The Socrates database allows queries and can produce exception lists on demand. While the UBS employees use these techniques on an ad-hoc basis, there are no written protocols over queries and exception reports.

In our opinion, the UBS staff should have formal procedures in place to regularly scan and cleanse the UBS database of errors, including:

- **Inactive accounts** - Last summer, after querying the database for a listing of inactive accounts, the UBS accountant embarked on a major clean-up of about 3,500 inactive accounts. According to the UBS staff, inactive accounts result from a change of ownership or a dwelling becoming permanently uninhabitable. Most of these accounts were the result of a change in ownership, had zero balances, and simply needed to be deleted. However, in the interim, these accounts were receiving bi-monthly bills for \$0. Obviously, inactive accounts due to a change in ownership should be deleted promptly. In addition, the UBS should establish authorization procedures for changing an account designation from active to inactive.
- **LIRA eligibility re-verifications** - The Special Rates Unit at the UBS has procedures in place to ensure that LIRA eligibility is re-verified but does not have procedures in place to regularly query the database for exceptions or errors.
- **Rate codes** - There are a total of 442 rate codes available in the UBS database. The UBS produces monthly reports for the ESD showing the total number of customers by rate code. According to UBS staff, rate code errors would probably show up as exceptions in those monthly reports. However, the UBS does not have procedures in place to regularly scan monthly reports for rate code exceptions.

#20 We recommend that if the City retains the UBS computer system, the Administration establish on-going procedures for (1) scanning for errors and correcting customer data in the database, (2) purging unnecessary data, (3) authorizing changes in account status from active to inactive, and (4) routinely reviewing monthly reports for rate code exceptions. (Priority 3)

**By Implementing These Recommendations,
The City And Its Recycle Plus Customers
Could Save At Least \$2.7 Million Per Year**

As a result of changes in the UBS and Sewer Billing, we estimate that the City and its Recycle Plus customers could save up to \$2.7 million per year as follows:

- \$800,000 in customer lien fee reductions;
- \$400,000 by redirecting customer service calls to Recycle Plus haulers.
- \$1,500,000 by consolidating sewer and storm drain billing with bi-monthly garbage billing; and

If the City were to outsource the UBS, we estimate that in addition to the \$2.7 million above, the City and its Recycle Plus customers could significantly reduce other costs associated with its \$3.7 million UBS by eliminating the balance of duplicative customer service, database functions, and administrative costs.

In addition, regardless of whether the City retains the UBS or not, we estimate the Recycle Plus Program could realize more than \$900,000 on a one-time basis by (1) accelerating the special assessment process, (2) eliminating excess accumulated allowance balances, and (3) removing back-billing coding. Table XV summarizes the potential savings, additional revenue and accelerated cash receipts from implementing the audit recommendations in this finding.

TABLE XV

**SUMMARY OF POTENTIAL SAVINGS,
ADDITIONAL REVENUE AND ACCELERATED CASH RECEIPTS FROM
IMPLEMENTING AUDIT RECOMMENDATIONS**

Annual Savings:	
Delinquent Customer lien fee reductions (Recommendation #1)	\$ 800,000
Redirecting service-related calls to the Recycle Plus haulers (Recommendation #3)	400,000
Consolidating sewer and storm drain billing with bi-monthly garbage billing (Recommendation #4)	1,500,000
Outsourcing UBS billing services and database function	TBD
Total Annual Savings	\$2,700,000
One-Time Additional Recycle Plus Revenues:	
Accelerating the special assessment process (Recommendation #2)	\$300,000
Eliminating excess accumulated allowance balances (Recommendation #7)	500,000
Total One-Time Addition Recycle Plus Revenues	\$800,000
One-time Additional Cash Receipts:	
Removing back-billed coding (Recommendation #9)	114,000
Total One-time Additional Cash Receipts	\$114,000

CONCLUSION

UBS administers the City's Recycle Plus customer service, billing and revenue collection functions at a cost of about \$3.7 million per year. As of February 1997, the City has spent \$1.5 million on hardware and software for its UBS database system with nearly \$380,000 in outstanding final implementation costs. Our review revealed that system limitations and procedural deficiencies precipitated the loss of database information in September 1996. In addition, we found that the customer lien process is only marginally effective and costs delinquent customers nearly \$800,000, and that the UBS customer service function largely duplicates what the Recycle Plus haulers do. In our opinion, the City should eliminate the lien function, streamline customer services, consolidate City billings, and evaluate the merit of

retaining versus outsourcing the UBS. In addition, the Finance Department should implement accounting and procedural changes that will, among other things, increase Recycle Plus revenues by \$800,000 on a one-time basis. By implementing these recommendations, we estimate that the City and its Recycle Plus customers could save at least \$2.7 million per year. Should the City opt to retain the UBS, the City should prepare a data system contingency plan, transfer operational responsibility for its computer system to the IT department, hire a database administrator, and improve its controls over detecting database errors.

RECOMMENDATIONS

We recommend that:

Recommendation #1:

The City Council (1) revise the Municipal Code to remove the Recycle Plus lien requirement, (2) direct the Finance Department to use the special assessment process to collect delinquent Recycle Plus fees, and (3) direct the Finance Department and ESD to prepare a revised fee and penalty schedule that results in a revenue-neutral impact on the IWM fund. (Priority 2)

Recommendation #2:

If the City Council eliminates the lien function, the Finance Department should (1) use the special assessment process to collect Recycle Plus Fees that have been delinquent 60 days or more as of the County Tax Collector's special assessment submittal deadline, (2) notify property owners of intent to assess delinquent Recycle Plus bills, and (3) keep delinquent balances on Recycle Plus customer bills until they are assessed. (Priority 2)

Recommendation #3:

Recycle Plus haulers handle customer service calls directly. (Priority 2)

Recommendation #4:

The City Council consider combining sewer and storm drain fees with Recycle Plus billings. (Priority 2)

In addition, we recommend that the Finance Department:

Recommendation #5:

Implement a policy of accepting credit card payments for Recycle Plus services.
(Priority 2)

Recommendation #6:

Use a deferred revenue account to defer recognition of special assessment and delinquent fee revenue, and annually review deferred revenue and make necessary adjustments. (Priority 2)

Recommendation #7:

Annually review the allowance rate for write-offs and make necessary adjustments, and recognize excess allowance balances as revenues in 1996-97. (Priority 2)

Recommendation #8:

Revise its method of accounting for Recycle Plus receivables to ensure that receivables for liens, special assessments, fees and penalties are recorded in the FMS. (Priority 2)

Recommendation #9:

Prepare written procedures regarding the use of the "back-billed" account designation which exempts certain accounts from special assessments and penalties, and remove the back-billed coding from those accounts that are more than 12 months overdue. (Priority 2)

Recommendation #10:

Prepare a written policy clarifying what Recycle Plus write-offs are allowable and reasonable. (Priority 3)

Recommendation #11:

Prepare monthly reconciliations of the UBS customer accounts receivable and lien/assessment receivables to FMS. (Priority 3)

Recommendation #12:

Improve the separation of duties related to the receipt of lien payments to ensure that personnel in charge of recording liens do not handle lien payments. (Priority 3)

Further, we recommend that the City Council:

Recommendation #13:

Consider whether to retain all or part of the UBS. (Priority 2)

In addition, we recommend that:

Recommendation #14:

The Administration evaluate the capabilities of Greenteam, SJWC, and Western/USA Waste to provide utility billing services for the City's Recycle Plus program, and report back to the City Council regarding the results of that evaluation. (Priority 2)

Recommendation #15:

The City Council assess the need to upgrade to Customer Star II based upon the Administration's evaluation of the capabilities of Greenteam, SJWC, and Western/USA Waste to provide UBS billing services and the need for a lengthy competitive RFP process. (Priority 2)

We recommend that if the City retains the UBS computer system, the Administration:

Recommendation #16:

Prepare a computer contingency plan for the UBS and clarify back-up procedures.
(Priority 2)

In addition, we recommend the IT Department:

Recommendation #17:

Review the adequacy of all major City computer system back-up procedures and computer contingency plans. (Priority 2)

Further, we recommend that if the City retains the UBS computer system, the Administration:

Recommendation #18:

Relocate the UBS computer system to the IT computer room and that the IT department operate and maintain the UBS computer system. (Priority 3)

Recommendation #19:

Request that the City Council authorize a database administrator position at the UBS. (Priority 3)

Recommendation #20:

Establish on-going procedures for (1) scanning for errors and correcting customer data in the database, (2) purging unnecessary data, (3) authorizing changes in account status from active to inactive, and (4) routinely reviewing monthly reports for rate code exceptions. (Priority 3)

FINDING II

THE GENERAL FUND CONTRIBUTED \$1.2 MILLION MORE THAN NEEDED FOR LOW-INCOME AND DISABILITY RATE SUBSIDIES DURING 1994-95 AND 1995-96

The Utility Billing System (UBS) administers several subsidy programs for its Recycle Plus customers including low-income rate assistance (LIRA), subsidized on-premise collection for people with disabilities, fee exemptions in cases of illness, death, or if the premises is uninhabitable, and reduced rates based on a medical condition which results in the generation of a significant amount of medical waste. The General Fund annually transfers funds to the Integrated Waste Management (IWM) Fund to cover the subsidies. During 1994-95 and 1995-96, the General Fund transferred \$1 million per year to the IWM Fund. However, subsidy usage over that two year period was only \$787,000. As a result, the General Fund contributed \$1.2 million too much to the IWM Fund. In our opinion, the IWM Fund should transfer the excess back to the General Fund. In addition, the Finance Department (Finance) should periodically review subsidy usage and transfer subsidy amounts from the General Fund to the IWM Fund on a cost-reimbursement basis.

The Recycle Plus Subsidy Programs

The City Council has authorized several Recycle Plus rate subsidy programs including:

- **Low-income rate assistance (LIRA)** - The City of San Jose provides two forms of reduced garbage rates for low-income households: (1) households of any size with income not greater than 175 percent of the federal poverty level are eligible for a 30 percent reduction on the monthly rate for a 32-gallon garbage cart or a 50 percent reduction on the monthly rate for larger carts and (2) families of five or more with household income of 176 to 200 percent of federal poverty level are eligible for a 25 percent reduction on the rate for a 64-gallon cart or larger (based on household size). LIRA eligibility is re-verified annually based on Federal Income Tax returns, SSI or Social Security benefits statements, or documentation of welfare eligibility.
- **Special medical rate** - Reduced rate based on medical condition which results in the generation of a significant amount of medical waste; eligibility is based on doctor and applicant certification of on-going medical condition.

- **On-premises collection for people with disabilities** - Subsidized rate based on doctor and applicant certification of on-going medical condition. Note that any customer can sign up for on-premises collection at a premium rate; subsidized customers receive on premises service at the regular rate.
- **Uninhabitable** - There is an exemption from Recycle Plus fees if the premises is temporarily uninhabitable due to fire, or based on documentation that the electric or water meter has been removed, documentation from a licensed professional engineer that the dwelling is permanently uninhabitable, permit for demolition, or notice of condemned status.
- **Illness or death hardship** - There is an exemption from Recycle Plus fees because of vacancy due to illness or death. Eligibility is based on written certification that the homeowner is receiving temporary care at a medical care facility. If the vacancy is due to death, the applicant must submit a death certificate and a letter from the executor stating that the house will be vacant during probate.

The General Fund Contributed \$1.2 Million More Than Needed For Subsidies During 1994-95 And 1995-96

The IWM Fund, which was established in 1994-95, receives a transfer from the General Fund to cover the above subsidies. The General Fund transferred \$1 million in 1994-95 and \$1 million in 1995-96 for lifeline discount subsidies. However, according to the UBS' staff reconciliation, subsidy usage for 1994-95 and 1995-96 was only \$787,000. As a result, the General Fund contributed \$1.2 million too much to the IWM Fund over the two year period.

Table XVI shows actual subsidy usage for 1994-95 and 1995-96. The calculated subsidy amount is the difference between the standard rate for the Recycle Plus service and the subsidized rate for the service.

TABLE XVI
SPECIAL RATE SUBSIDIES AND GENERAL FUND TRANSFERS
1994-95 AND 1995-96

Type Of Subsidy	1994-95	1995-96	Total
Low income	\$ 366,000	\$ 258,000	\$ 624,000
Hardship	2,000	4,000	6,000
Disability/medical	76,000	81,000	157,000
Total	\$ 444,000	\$ 343,000	\$ 787,000
Lifeline discount subsidy transfer from General Fund to IWM Fund	\$1,000,000	\$1,000,000	\$2,000,000
Excess Transfer	<u>\$556,000</u>	<u>\$657,000</u>	<u>\$ 1,213,000</u>
<i>Average number of recipients per month</i>	<i>5,798</i>	<i>4,530</i>	
<i>Average annual subsidy amount</i>	<i>\$77</i>	<i>\$76</i>	

It should be noted that as of June 30, 1996, the IWM fund had an undesignated fund balance of \$6.3 million. It should also be noted that according to the Environmental Services Department (ESD), the \$1.2 million shown above could be reduced by the cost of the UBS to administer the special rate subsidies. According to the UBS, there are three full-time UBS employees who administer these subsidies at an annual cost of \$161,000. In other words, it costs the UBS nearly 50 cents to administer every dollar of special rate subsidies under these programs. In our opinion, the City Manager's Budget Office should review the UBS' cost to administer the subsidy program and adjust the \$1.2 million excess accordingly and transfer the residual amounts back to the General Fund.

#21 We recommend that the City Manager's Budget Office review the \$1.2 million in unused subsidies and associated administrative costs and determine what amount should be transferred back to the General Fund. (Priority 2)

Transfers Should Be Structured To Cover The Cost Of Subsidy Programs

The General Fund transfer is specifically intended to cover rate subsidies. During the Recycle Plus rate-setting process in February 1993, staff estimated that up to 13,500 households

might qualify for LIRA subsidies of \$947,000 per year. As shown in Table XVI, low income subsidies only totaled \$366,000 in 1994-95 and \$258,000 in 1995-96. On a percentage basis, staff originally estimated that 7.5 percent of households would qualify for LIRA subsidies (13,500 out of 180,000). However, our review revealed that in August 1996 only 1.8 percent of accounts were qualified LIRA accounts (3,405 out of 186,576 accounts).

Conversely, the original staff estimates of the cost of disability subsidies were low. In February 1993, staff estimated that medical exemptions would cost less than \$40,000 per year. As shown in Table XVI, disability subsidies cost the program about \$80,000 per year.

Because these numbers are difficult to project, either Finance or ESD should periodically review year-to-date subsidy usage. In addition, the UBS should work with the ESD and the Budget Office to determine the best way to transfer subsidy amounts from the General Fund to the IWM Fund. In our opinion, these interfund transfers should be on a cost-reimbursement basis.

#22 We recommend that the Finance Department periodically review year-to-date subsidy usage and transfer subsidy amounts from the General Fund to the IWM Fund on a cost-reimbursement basis. (Priority 2)

CONCLUSION

The UBS administers several subsidy programs for its Recycle Plus customers. The General Fund transfers a budgeted subsidy amount to the IWM Fund to cover the subsidies. During 1994-95 and 1995-96, the General Fund transferred \$1 million per year to the IWM fund, but subsidy usage was only \$787,000 over the two year period. As a result, the General Fund transferred \$1.2 million too much to the IWM Fund. In our opinion, the City Manager's Budget Office should review the UBS' cost to administer the subsidy program, adjust the excess \$1.2 million accordingly and transfer the residual amount back to the General Fund. In addition, Finance should establish procedures to periodically review subsidy usage and transfer subsidy amounts from the General Fund to the IWM Fund on a cost-reimbursement basis.

RECOMMENDATIONS

We recommend that the City Manager's Budget Office:

Recommendation #21:

Review the \$1.2 million in unused subsidies and associated administrative costs and determine what amount should be transferred back to the General Fund. (Priority 2)

Finally, we recommend that the Finance Department:

Recommendation #22:

Periodically review year-to-date subsidy usage and transfer subsidy amounts from the General Fund to the IWM fund on a cost-reimbursement basis. (Priority 2)